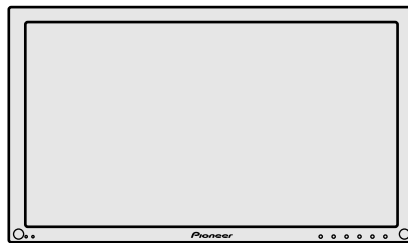


Service Manual



PDP-433PU

ORDER NO.
ARP3143

PLASMA DISPLAY

PDP-433PU

PDP-433PE

PDP-433PG

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
PDP-433PU	KUC	AC120V	
PDP-433PE	WYVI6	AC220-240V	
PDP-433PE	WYVI6XK	AC220-240V	
PDP-433PG	TLDPKBR	AC110-240V	

This service manual should be used together with the following manual(s).

This product is component of system.

Component	System			Service Manual	Remarks
Plasma Display System	PDP-4330HD	PDP-433HDE	PDP-433HDG	-	
• Media Receiver	PDP-R03U	-	-	ARP3113	
	-	PDP-R03E	-	ARP3148	
	-	-	PDP-R03G	ARP3149	
• Plasma Display	PDP-433PU	PDP-433PE	PDP-433PG	ARP3143	Service Manual



For details, refer to "Important symbols for good services".

Confirm it

Serial No.

☐ **WYVI6** : ☐ **SS** ##### △△
☐ **WYVI6XK** : ☐ **UK** ##### △△

SAFETY INFORMATION



This service manual is intended for qualified service technicians ; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.


WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 - Proposition 65



NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols  (fast operating fuse) and/or  (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible  (fusible de type rapide) et/ou  (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

SAFETY PRECAUTIONS

NOTICE : Comply with all cautions and safety related notes located on or inside the cabinet and on the chassis.

The following precautions should be observed :

- When service is required, even though the PDP UNIT an isolation transformer should be inserted between the power line and the set in safety before any service is performed.
- When replacing a chassis in the set, all the protective devices must be put back in place, such as barriers, nonmetallic knobs, adjustment and compartment covershields, isolation resistor-capacitor, etc.
- When service is required, observe the original lead dress. Extra precaution should be taken to assure correct lead dress in the high voltage circuitry area.
- Always use the manufacture's replacement components. Especially critical components as indicated on the circuit diagram should not be replaced by other manufacture's. Furthermore where a short circuit has occurred, replace those components that indicate evidence of overheating.
- Before returning a serviced set to the customer, the service technician must thoroughly test the unit to be certain that it is completely safe to operate without danger of electrical shock, and be sure that no protective device built into the set by the manufacture has become defective, or inadvertently defeated during servicing. Therefore, the following checks should be performed for the continued protection of the customer and servicetechnician.
- Perform the following precautions against unwanted radiation and rise in internal temperature.
 - Always return the internal wiring to the original styling.
 - Attach parts (Gasket, Ferrite Core, Ground, Rear Cover, Shield Case etc.) surely after disassembly.
- Perform the following precautions for the PDP panel.
 - When the front case is removed, make sure nothing hits the panel face, panel corner, and panel edge (so that the glass does not break).
 - Make sure that the panel vent does not break. (Check that the cover is attached.)
 - Handle the FPC connected to the panel carefully. Twisting or pulling the FPC when connecting it to the connector will cause it to peel off from the panel.
- Pay attention to the following.
 - When the front case is removed, infrared ray is radiated and may disturb reception of the remote control unit.
 - Pay extreme caution when the front case and rear panel are removed because this may cause a high risk of disturbance to TVs and radios in the surrounding.

Leakage Current Cold Check

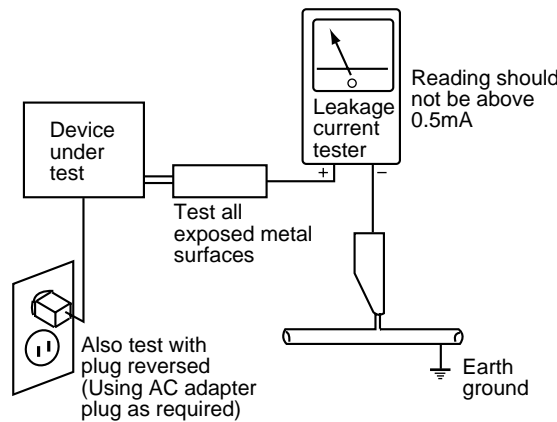
With the AC plug removed from an AC power source, place a jumper across the two plug prongs. Turn the AC power switch on. Using an insulation tester (DC 500V), connect one lead to the jumpered AC plug and touch the other lead to each exposed metal part (input/output terminals, screwheads, metal overlays, control shafts, etc.), particularly any exposed metal part having a return path to the chassis. Exposed metal parts having a return path to the chassis should have a minimum resistor reading of $0.3M\Omega$ and a maximum resistor reading of $5M\Omega$. Any resistor value below or above this range indicates an abnormality which requires corrective action. Exposed metal parts not having a return path to the chassis will indicate an open circuit.

Leakage Current Hot Check

Plug the AC line cord directly into an AC power source (do not use an isolation transformer for this check).

Turn the AC power switch on.

Using a "Leakage Current Tester (Simpson Model 229 equivalent)", measure for current from all exposed metal parts of the cabinet (input/output terminals, screwheads, metal overlays, control shaft, etc.), particularly any exposed metal part having a return path to the chassis, to a known earth ground (water pipe, conduit, etc.). Any current measured must not exceed 0.5mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE SET TO THE CUSTOMER.

PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in PIONEER set have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a Δ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

■ Charged Section

The places where the commercial AC power is used without passing through the power supply transformer.

If the places are touched, there is a risk of electric shock. In addition, the measuring equipment can be damaged if it is connected to the GND of the charged section and the GND of the non-charged section while connecting the set directly to the commercial AC power supply. Therefore, be sure to connect the set via an insulated transformer and supply the current.

1. AC Power Cord
2. AC Inlet with Filter
3. Power Switch (S1)
4. Fuse (In the SW POWER SUPPLY Module)
5. STB Transformer and Converter Transformer (In the SW POWER SUPPLY Module)
6. Other primary side of the SW POWER SUPPLY Module

■ High Voltage Generating Point

The places where voltage is 100V or more except for the charged places described above. If the places are touched, there is a risk of electric shock.

1. SW POWER SUPPLY Module (215V)
2. X DRIVE Assy (–280V to 215V)
3. Y DRIVE Assy (345V)
4. SCAN (A) Assy (345V)
5. SCAN (B) Assy (345V)
6. X CONNECTOR (A) Assy (–280V to 215V)
7. X CONNECTOR (B) Assy (–280V to 215V)

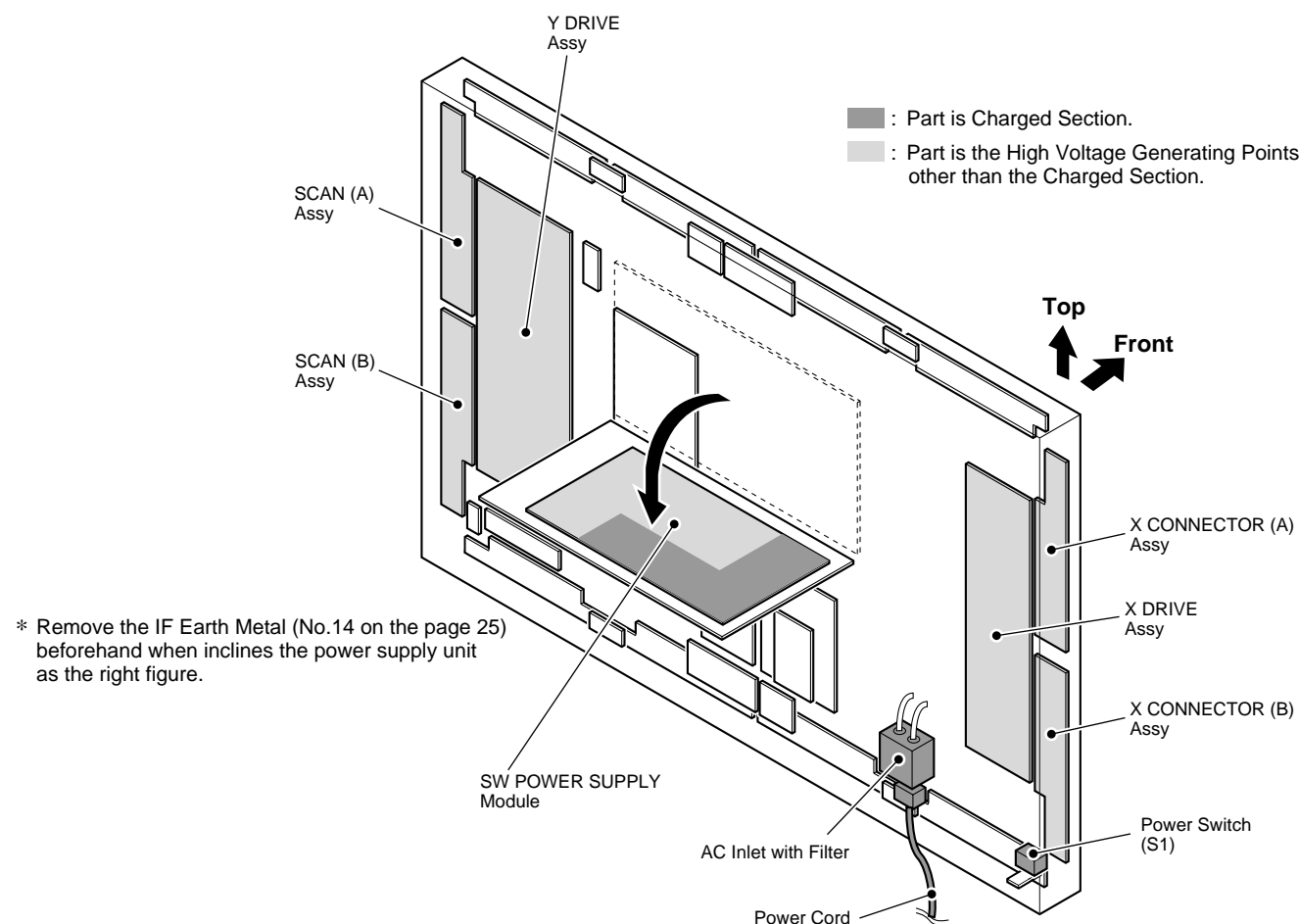


Fig.1 Charged Section and High Voltage Generating Point (Rear View)

[Important symbols for good services]

In this manual, the symbols shown-below indicate that adjustments, settings or cleaning should be made securely. When you find the procedures bearing any of the symbols, be sure to fulfill them:

1. Product safety



You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.

2. Adjustments



To keep the original performances of the product, optimum adjustments or specification confirmation is indispensable. In accordance with the procedures or instructions described in this manual, adjustments should be performed.

3. Cleaning



For optical pickups, tape-deck heads, lenses and mirrors used in projection monitors, and other parts requiring cleaning, proper cleaning should be performed to restore their performances.

4. Shipping mode and shipping screws



To protect the product from damages or failures that may be caused during transit, the shipping mode should be set or the shipping screws should be installed before shipping out in accordance with this manual, if necessary.

5. Lubricants, glues, and replacement parts



Appropriately applying grease or glue can maintain the product performances. But improper lubrication or applying glue may lead to failures or troubles in the product. By following the instructions in this manual, be sure to apply the prescribed grease or glue to proper portions by the appropriate amount. For replacement parts or tools, the prescribed ones should be used.

CONTENTS

SAFETY INFORMATION	2
1. SPECIFICATIONS	7
2. EXPLODED VIEWS AND PARTS LIST	8
2.1 PACKING	8
2.2 UNDER LAYER SECTION (1)	10
2.3 UNDER LAYER SECTION (2)	12
2.4 UNDER LAYER SECTION (3)	14
2.5 UNDER LAYER SECTION (4)	16
2.6 UNDER LAYER SECTION (5)	18
2.7 MIDDLE LAYER SECTION (1).....	20
2.8 MIDDLE LAYER SECTION (2).....	22
2.9 UPPER LAYER SECTION (1).....	24
2.10 UPPER LAYER SECTION (2).....	26
2.11 FRONT CASE SECTION.....	28
2.12 REAR SECTION	30
2.13 PDP SERVICE ASSY 433 (AWU1069).....	31
2.14 PANEL CHASSIS (43) ASSY (AWU1067)	32
3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM.....	34
3.1 BLOCK DIAGRAM.....	34
3.1.1 OVERALL DIAGRAM.....	34
3.1.2 MR INTERFACE ASSY	36
3.1.3 DIGITAL VIDEO ASSY	38
3.1.4 X DRIVE ASSY	39
3.1.5 Y DRIVE ASSY	40
3.1.6 SUB ADDRESS A and B ASSYS	42
3.1.7 ADR RESONANCE ASSY	43
3.1.8 ADR CONNECT A, B, C and D ASSYS.....	44
3.1.9 AUDIO AMP and SP TERMINAL ASSYS	45
3.2 WAVEFORMS	46
	(For SCHEMATIC DIAGRAM, refer to ARP3144)
4. PCB CONNECTION DIAGRAM	Refer to ARP3144
5. PCB PARTS LIST	50
6. ADJUSTMENT	60
6.1 SERVICE FACTORY MODE	60
6.1.1 How to Enter the Service Factory Mode	61
6.1.2 General Information about the Plasma Display and Media Receiver.....	62
6.1.3 Adjustment and Setting Item of the Plasma Display	64
6.2 ADJUSTMENT REQUIRED WHEN THE SET IS REPAIRED OR REPLACED	67
6.3 ADJUSTMENT	68
6.4 COMMANDS.....	71
6.4.1 RS-232C Commands.....	71
6.4.2 GET Commands	75
7. GENERAL INFORMATION.....	77
7.1 DIAGNOSIS	77
7.1.1 CONFIGURATION OF THE PC BOARD	77
7.1.2 DIAGNOSIS FOR SHUTDOWN AND POWER-DOWN DIAGNOSIS BY LED	78
7.1.3 DISASSEMBLY	85
7.2 IC INFORMATION	89
8. PANEL FACILITIES	108

1. SPECIFICATIONS

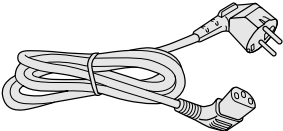
Item	Model: PDP-433PU
Number of Pixels	1024 × 768 pixels
Audio Amplifier	12 W + 12 W (10% distortion)
Power Requirement	AC 120 V, 60 Hz, 318 W (0.6 W Standby)
Dimensions	1070 (W) × 630 (H) × 98 (D) mm [42 ¹ / ₈ (W) × 24 ¹³ / ₁₆ (H) × 3 ⁷ / ₈ (D) inch]
Weight	31.5 kg (69.4 lbs)
Accessories	Power Cord, Cleaning Cloth, Three speed clamps, Three bead bands, Warranty card

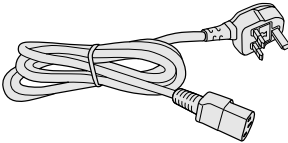
Item	Model: PDP-433PE	Model: PDP-433PG
Number of Pixels	1024 x 768 pixels	1024 x 768 pixels
Audio Amplifier	12 W + 12 W (10 % distortion)	12 W + 12 W (10 % distortion)
Power Requirement	AC 220–240 V, 50/60 Hz, 320 W (0.6 W Standby)	AC 110–240 V, 50/60 Hz, 319 W (0.8 W Standby)
Dimensions	1070 (W), 630 (H), 98 (D) mm	1070 (W), 630 (H), 98 (D) mm
Weight	31.5 kg	31.5 kg
Accessories	Power Cord, Cleaning Cloth, Three speed clamps, Three bead bands, Warranty card	Cleaning Cloth, Three speed clamps, Three bead bands,

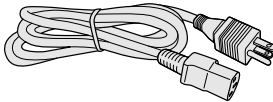
- Design and specifications are subject to change without notice.

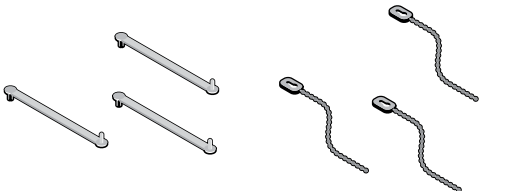
• Accessories

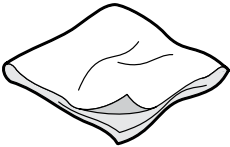
Power cord

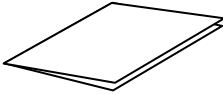
(ADG1173) ⚠️

(For Europe, except U.K. and Eire)

(ADG1193) ⚠️

(For U.K., and Eire)

(ADG1208) ⚠️

(For North America)


Binder Assy (AEC1908)

Three speed clamps Three bead bands


Cleaning cloth
(AED1208)


Warranty card

2. EXPLODED VIEWS AND PARTS LIST

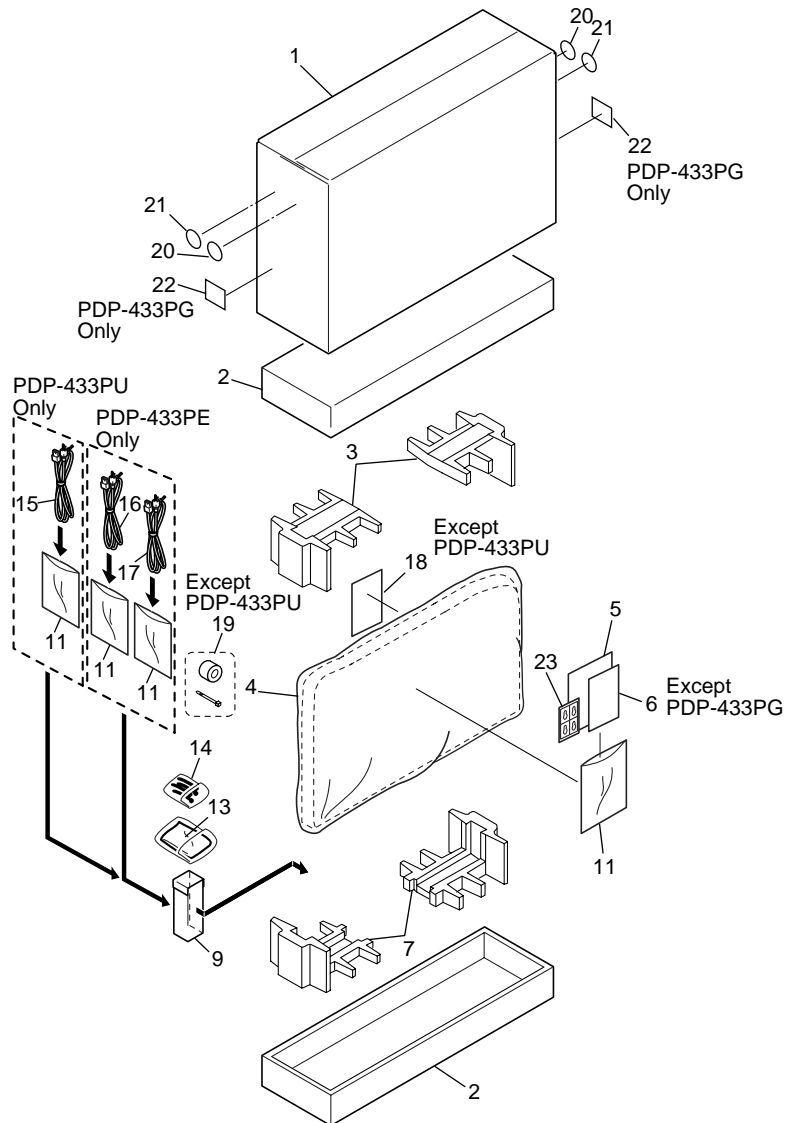
NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

● The  mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

● Screws adjacent to ▼ mark on product are used for disassembly.

● For the applying amount of lubricants or glue, follow the instructions in this manual.
(In the case of no amount instructions, apply as you think it appropriate.)

2.1 PACKING



PACKING parts List

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	Packing Case(43)	See Contrast table (2)	13	Wiping Cloth	AED1208
2	Carton(43)	AHD3100	14	Binder Assy (Speed Clampx3, Bead Bandx3)	AEC1908
3	Pad(43U)	AHA2282	⚠ 15	Power Cord	See Contrast table (2)
4	Mirror Mat	AHG1284	⚠ 16	Power Cord	See Contrast table (2)
5	SP Caution Sheet	ARM1218	⚠ 17	Power Cord	See Contrast table (2)
NSP 6	Warranty Card	See Contrast table (2)	18	Caution Sheet	See Contrast table (2)
7	Pad(43L)	AHA2283	19	Ferrite Core	See Contrast table (2)
8	•••••		20	Label (Blue 16)	AAX2787
9	Power Cord Case	See Contrast table (2)	21	Label (Green 16)	AAX2956
10	•••••		22	MIC Label	See Contrast table (2)
11	Vinyl Bag	AHG1310	23	SP Spacer	AEC1925
12	•••••				

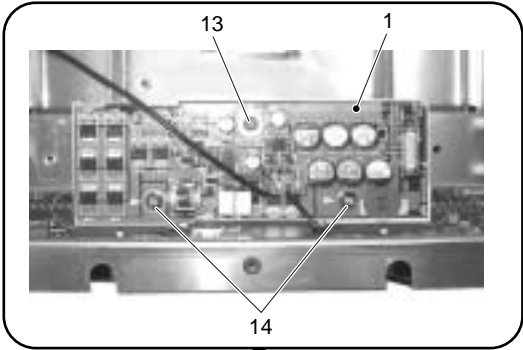
(2) CONTRAST TABLE

PDP-433PU/KUC, PDP-433PE/WYVI6, PDP-433PE/WYVI6XK and PDP-433PG/TLDPKBR are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-433PU/KUC	PDP-433PE/ WYVI6	PDP-433PE/ WYVI6XK	PDP-433PG/ TLDPKBR
NSP	1	Packing Case(43)	AHD3115	AHD3114	AHD3138	AHD3116
	6	Warranty Card	ARY1112	ARY1114	ARY1114	Not used
	9	Power Cord Case	AHC1037	AHC1037	AHC1039	AHC1037
⚠	15	Power Cord	ADG1208	Not used	Not used	Not used
⚠	16	Power Cord	Not used	ADG1173	ADG1173	Not used
⚠	17	Power Cord	Not used	ADG1193	ADG1193	Not used
	18	Caution Sheet	Not used	ARM1213	ARM1213	ARM1213
	19	Ferrite Core	Not used	ATX1039	ATX1039	ATX1039
	22	MIC Label	Not used	Not used	Not used	AAX2951

2.2 UNDER LAYER SECTION (1)

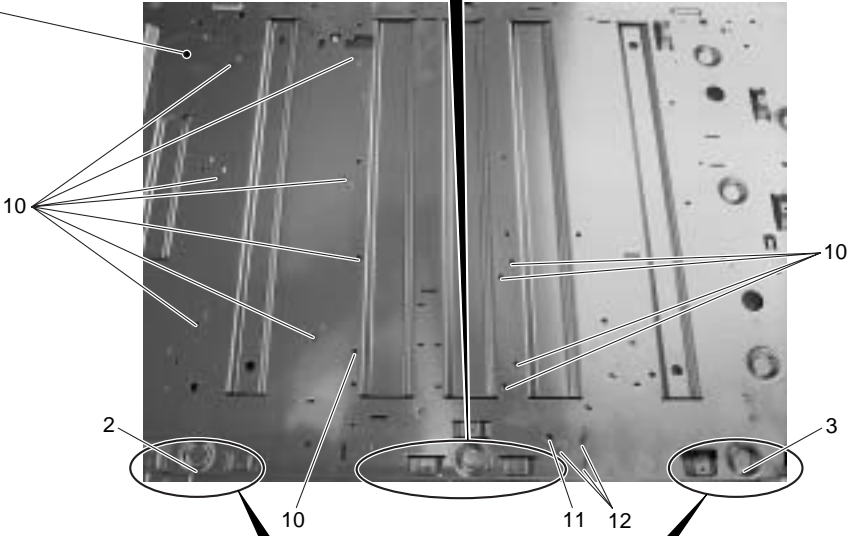
A



B

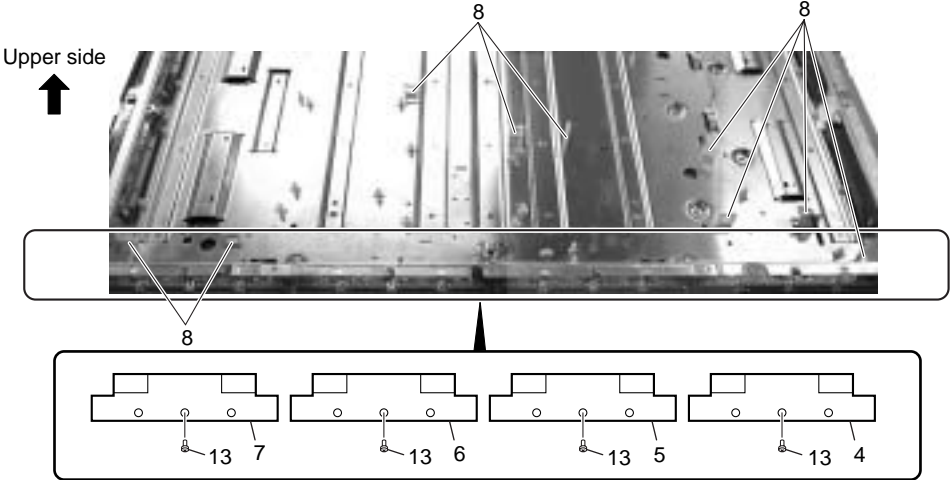
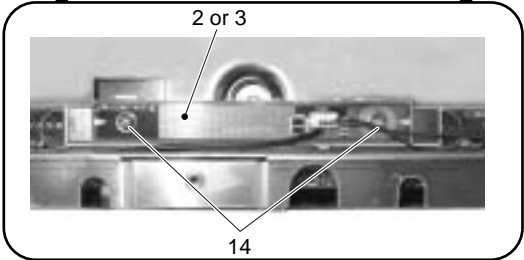
Refer to "2.14 PANEL CHASSIS (43) ASSY (AWU1067)".

9



C

D



E

F

UNDER LAYER SECTION(1) parts List

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	ADR RESONANCE Assy	AWZ6751
2	BRIDGE C Assy	AWZ6730
3	BRIDGE D Assy	AWZ6731
NSP 4	ADR CONNECT A Assy	AWZ6678
NSP 5	ADR CONNECT B Assy	AWZ6679
NSP 6	ADR CONNECT C Assy	AWZ6680
NSP 7	ADR CONNECT D Assy	AWZ6681
8	Wire Saddle	AEC1904
NSP 9	Panel Chassis (43) Assy	AWU1067
10	Circuit Board Spacer	AEC1872
NSP 11	PCB Spacer	AEC1121
12	Circuit Board Spacer	AEC1873
13	Screw	VBB30P100FNI
14	Screw	ABA1301

A

B

C

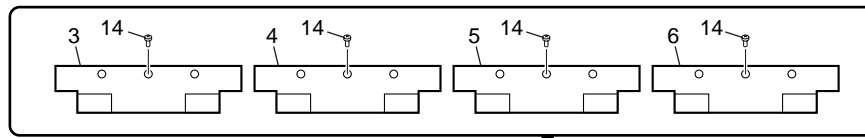
D

E

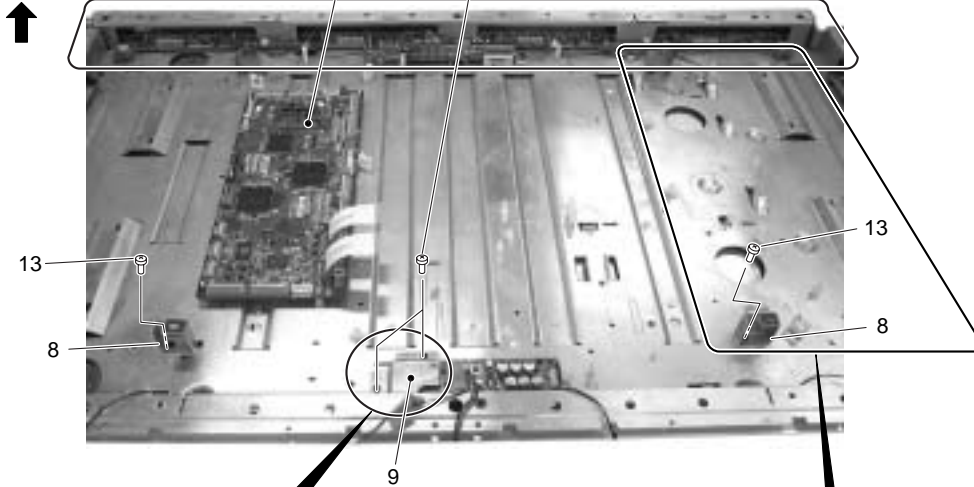
F

2.3 UNDER LAYER SECTION (2)

A

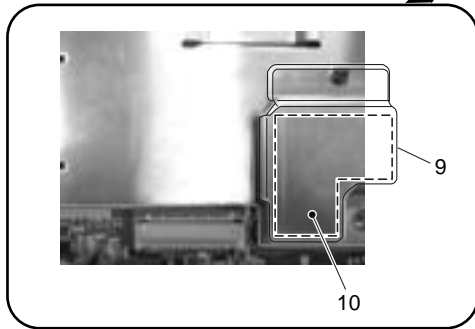


Upper side

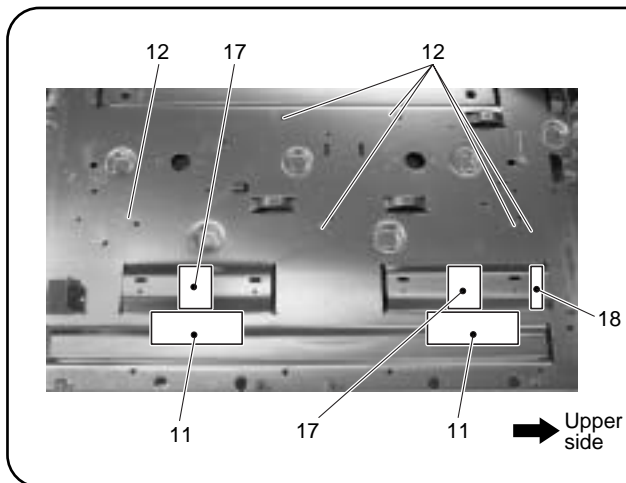


B

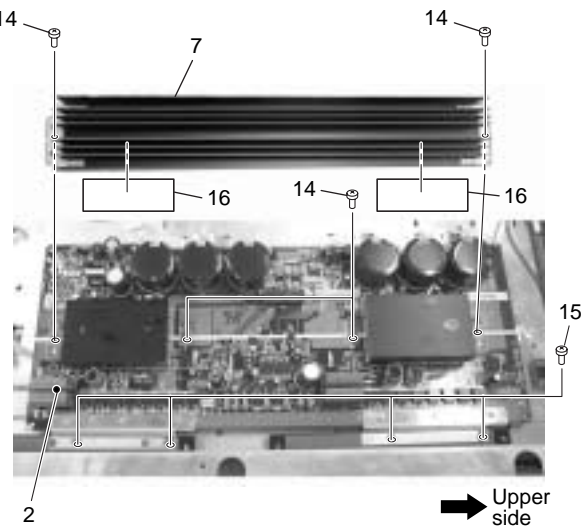
C



D



E



F

UNDER LAYER SECTION(2) parts List

Mark No.	Description	Part No.
1	DIGITAL VIDEO Assy	AWV1971
2	X DRIVE Assy	AWV1985
NSP 3	ADR CONNECT A Assy	AWZ6678
NSP 4	ADR CONNECT B Assy	AWZ6679
NSP 5	ADR CONNECT C Assy	AWZ6680
NSP 6	ADR CONNECT D ASSY	AWZ6681
NSP 7	Drive Heatsink Assy	ANH1598
NSP 8	Metal Fitting	ANG2464
NSP 9	Heat Sink	ANH1594
10	Silicone Sheet	AEH1039
11	Coil Silicon Sheet	AEH1048
12	Circuit Board Spacer	AEC1872
13	Screw	ABZ30P060FMC
14	Screw	VBB30P100FNI
15	Screw	PMB30P060FNI
16	Drive Silicon Sheet	AEH1041
17	Insulation Sheet A	AEC1923
18	Insulation Sheet B	AEC1924

A

B

C

D

E

F

2.4 UNDER LAYER SECTION (3)

A

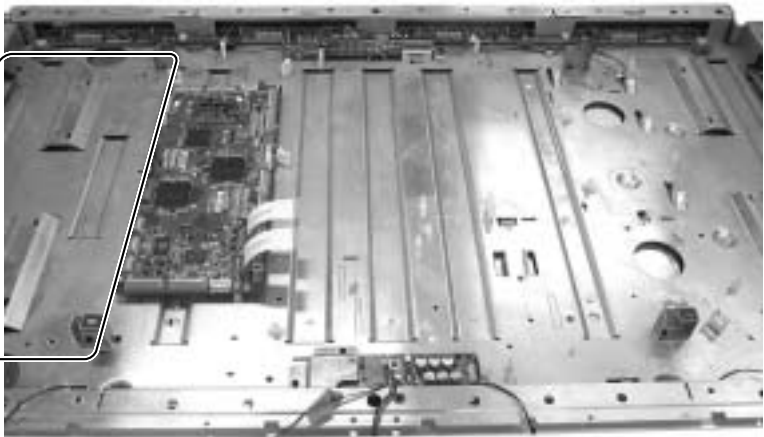
B

C

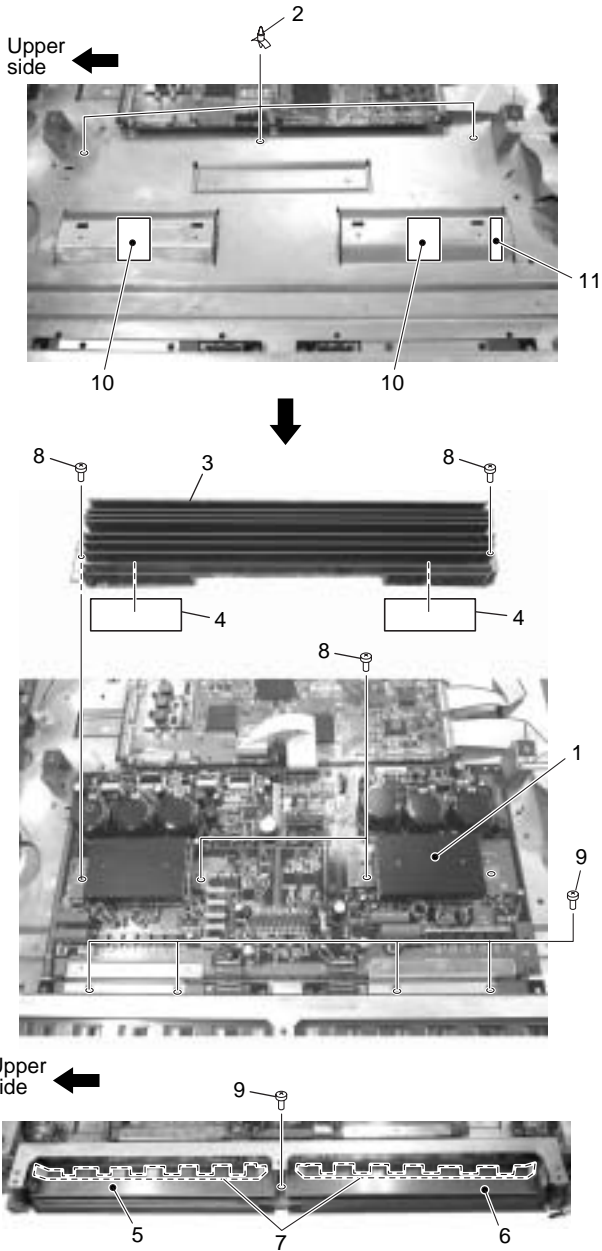
D

E

F



Upper side
↑



■ 5 ■ 6 7 ■ 8 ■

UNDER LAYER SECTION(3) parts List

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	Y DRIVE Assy	AWZ6749
2	Circuit Board Spacer	AEC1872
NSP 3	Drive Heatsink Assy	ANH1598
4	Drive Silicon Sheet	AEH1041
5	Scan IC Spring (43L)	ABK1029
6	Scan IC Spring (43R)	ABK1030
7	Scan Insulation Sheet (43)	AMR3287
8	Screw	VBB30P100FNI
9	Screw	PMB30P060FNI
10	Insulation Sheet A	AEC1923
11	Insulation Sheet B	AEC1924

A

B

C

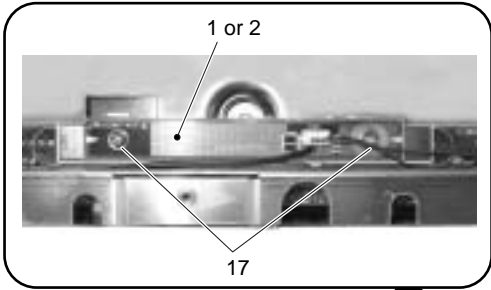
D

E

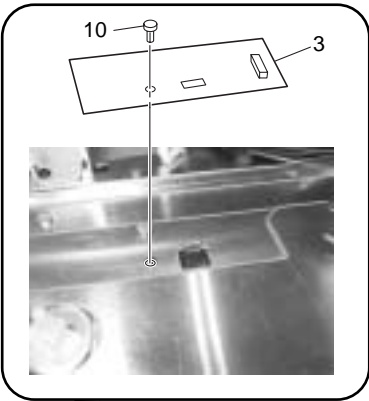
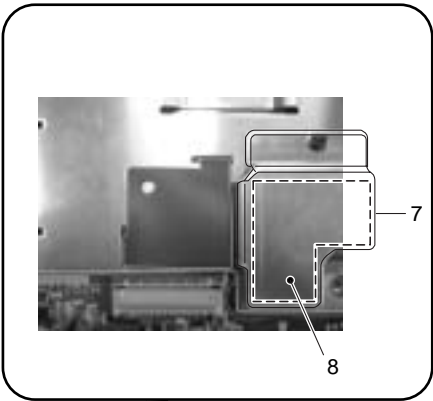
F

2.5 UNDER LAYER SECTION (4)

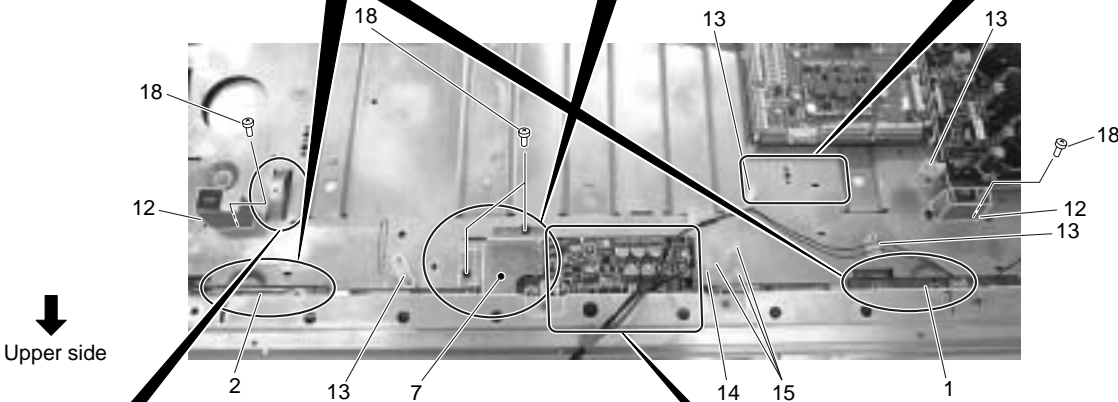
A



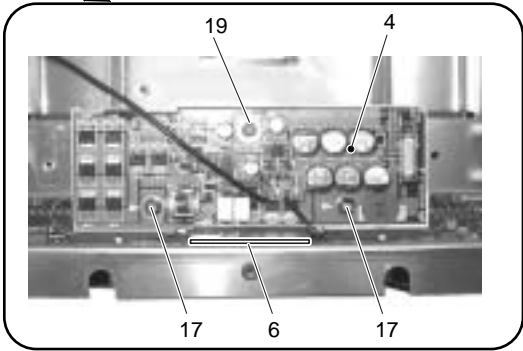
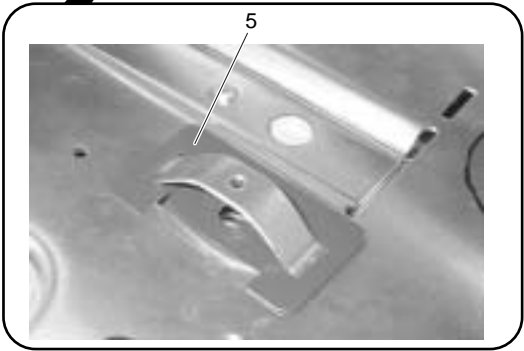
B



C



D



E

F

UNDER LAYER SECTION(4) parts List

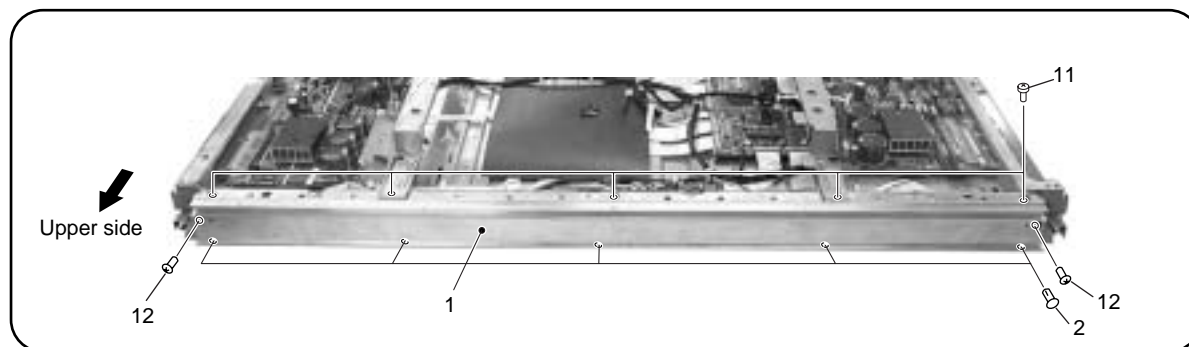
<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	BRIDGE A Assy	AWZ6728
2	BRIDGE B Assy	AWZ6729
3	SENSOR ASSY	AWZ6696
4	ADR RESONANCE Assy	AWZ6751
5	Brind Plate	AMR3313
6	Insulation Sheet	AMR3343
NSP 7	Heat Sink	ANH1594
8	Silicone Sheet	AEH1039
9	•••••	
10	Rivet	BEC1066
11	•••••	
12	Metal Fitting	ANG2464
13	Wire Saddle	AEC1904
NSP 14	PCB Spacer	AEC1121
15	Circuit Board Spacer	AEC1873
16	•••••	
17	Screw	ABA1301
18	Screw	ABZ30P060FMC
19	Screw	VBB30P100FNI

UNDER LAYER SECTION(5) parts List

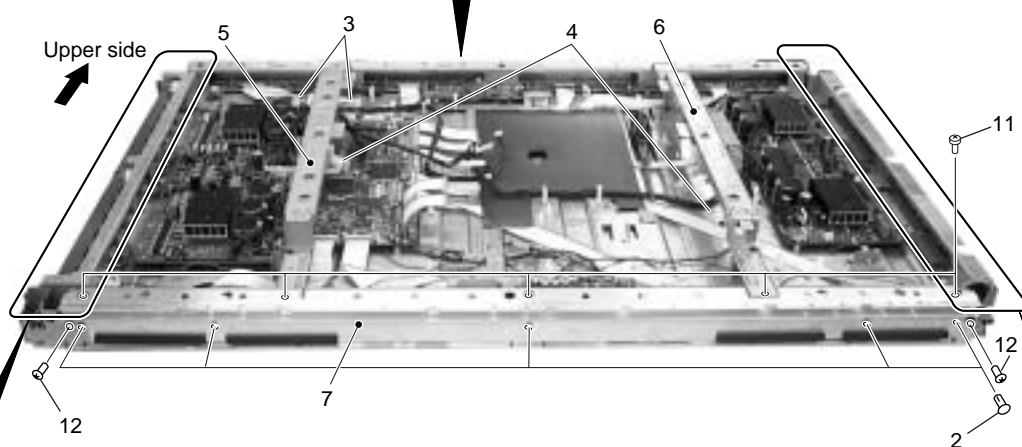
Mark No.	Description	Part No.
NSP 1	ADR CONNECT A Assy	AWZ6678
NSP 2	ADR CONNECT B Assy	AWZ6679
NSP 3	ADR CONNECT C Assy	AWZ6680
NSP 4	ADR CONNECT D Assy	AWZ6681
5	ADR RESONANCE Assy	AWZ6751
6	BRIDGE A Assy	AWZ6728
7	BRIDGE B Assy	AWZ6729
8	BRIDGE C Assy	AWZ6730
9	BRIDGE D Assy	AWZ6731
10	SUB ADDRESS A Assy	AWZ6692
11	SUB ADDRESS B Assy	AWZ6693
12	SCAN (A) Assy	AWZ6724
13	SCAN (B) Assy	AWZ6725
14	Y DRIVE Assy	AWZ6749
15	DIGITAL VIDEO Assy	AWV1971
16	SENSOR Assy	AWZ6696
17	X CONNECTOR (A) Assy	AWZ6726
18	X CONNECTOR (B) Assy	AWZ6727
19	X DRIVE Assy	AWV1985
20	J204 Flexible Flat Cable	ADD1207
21	J209 Flexible Flat Cable	ADD1206
22	J210 Flexible Flat Cable	ADD1204
23	J211 Flexible Flat Cable	ADD1199
24	J212 Flexible Flat Cable	ADD1201
25	J201 Flexible Flat Cable	ADD1194
26	J202 Flexible Flat Cable	ADD1194
27	Flat Clamp	AEC1879
28	J203 Flexible Flat Cable	ADD1198
29	J205 Flexible Flat Cable	ADD1202
30	J206 Flexible Flat Cable	ADD1200
31	J207 Flexible Flat Cable	ADD1208
32	J208 Flexible Flat Cable	ADD1205
33	Power Sheet (43)	AMR3284
34	Rivet	BEC1066
35	J110 3P Housing Wire	ADX2741
36	J108 8P Housing Wire	ADX2740
37	J102 Wire E	ADX2738
38	J103 13P Housing Wire	ADX2766
39	J116,J117 4P Housing Wire	ADX2783
40	J120 Wire L	ADX2763
41	J101 13P Housing Wire	ADX2768
42	J109 8P Housing Wire	ADX2743
43	Nylon Binder	AEC-093

2.7 MIDDLE LAYER SECTION (1)

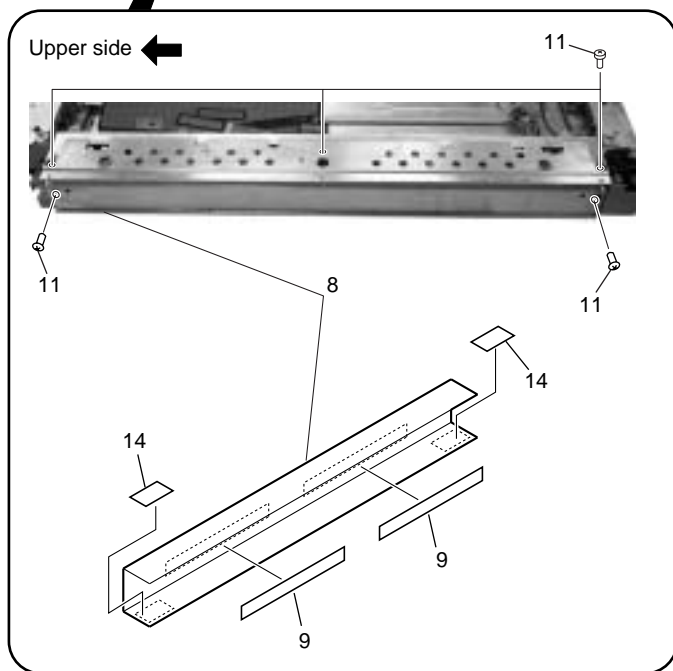
A



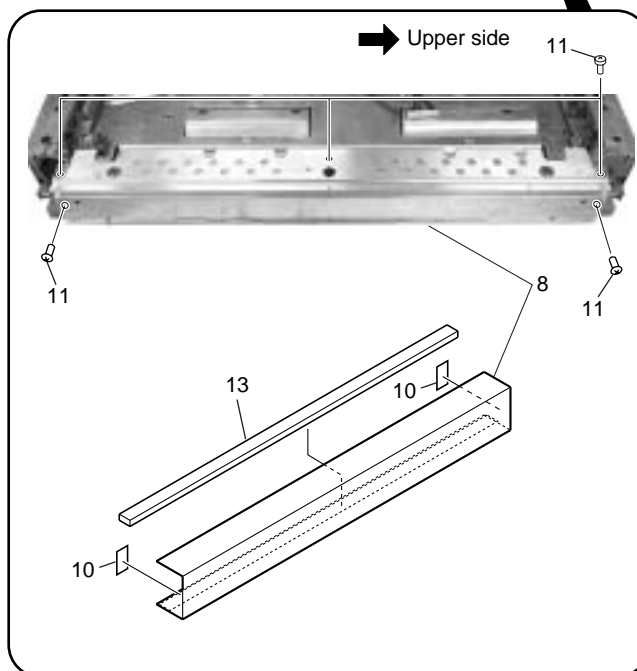
B



C



D



E

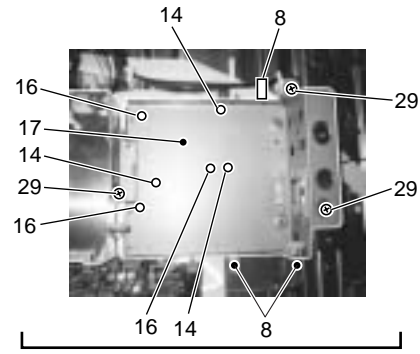
F

MIDDLE LAYER SECTION(1) parts List

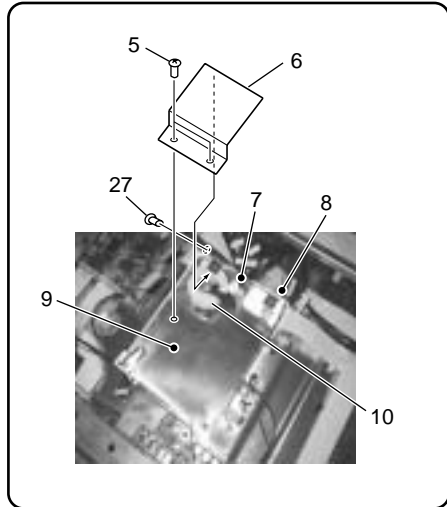
<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
NSP 1	Front Chassis HU (43)	ANA1698
NSP 2	Card Spacer	AEC1902
3	Niplocker	AEC1803
4	Card Corner Holder	BEC1144
5	Sub Frame L	ANG2517
6	Sub Frame R	ANG2518
NSP 7	Front Chassis HL (43)	ANA1699
NSP 8	Front Chassis V (43)	ANA1702
9	FPC Cushion (43)	AEB1371
10	Insulation Sheet C	AEC1927
11	Screw	ABA1294
12	Screw	BMZ30P060FMC
13	VR Cushion	AEB1374
14	V Cushion	AED1205

2.8 MIDDLE LAYER SECTION (2)

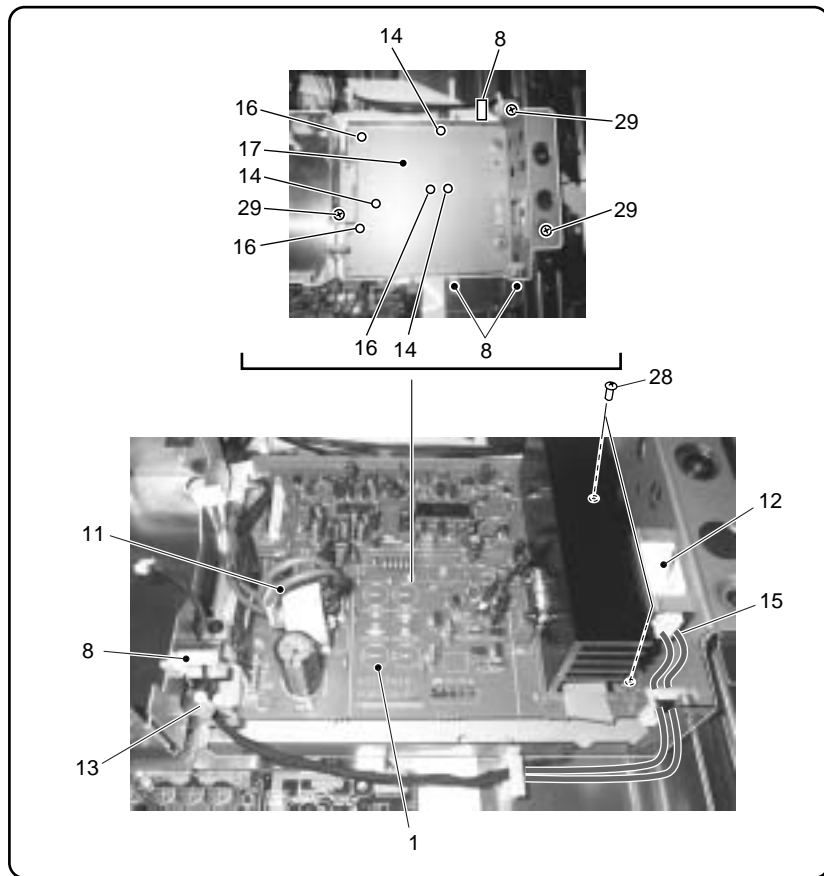
A



B



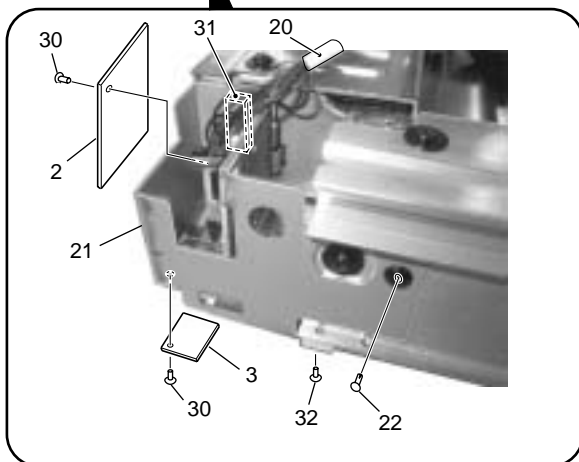
C



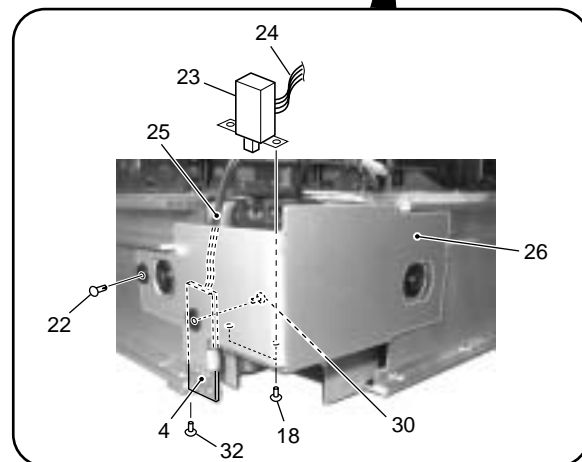
D




E



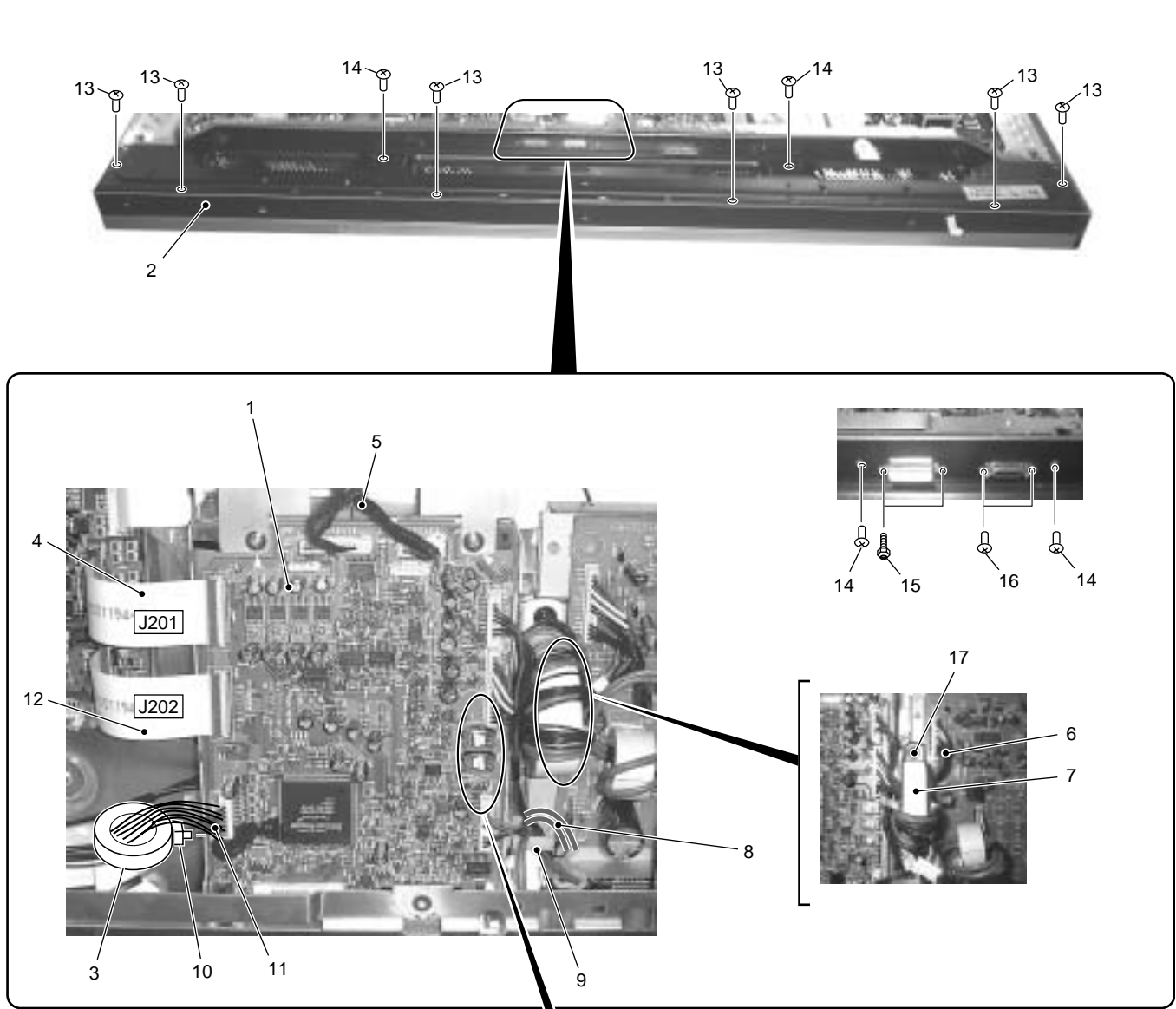
F



MIDDLE LAYER SECTION(2) parts List

<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	AUDIO AMP Assy	AWZ6687
2	FRONT KEY CONN Assy	AWZ6657
3	IR (P) Assy	AWZ6658
4	LED Assy	AWZ6655
5	Nylon Rivet	AEP-211
6	IF Sheet	AMR3298
7	Edge Saddle	AEC1571
8	Wire Saddle	AEC1745
9	IF Shield	ANA1675
10	L2 Toroidal Core	ATX1042
11	J214 3P Housing Wire	ADX2735
12	S2 Power Switch	ASG1089
13	Niplocker	BEC1136
14	PCB Spacer	AEC1570
15	J215 3P Housing Wire	ADX2757
16	Spacer	AEC1360
17	Audio Base	ANA1687
18	Screw	BMZ30P060FZK
19	V Cushion	AED1205
20	J113 Wire PJ	ADX2742
NSP 21	IR Holder	ANG2494
22	Nylon Rivet	AEC1671
 23	S1 Power Switch	ASG1082
24	J106 Wire PC	ADX2827
25	J104 3P Housing Wire	ADX2748
NSP 26	Switch Holder	ANG2493
27	Screw	ABA1294
28	Screw	PMB30P060FNI
29	Screw	AMZ30P060FZK
30	Screw	BMZ30P040FMC
31	Gasket R	ANK1695
32	Screw	ABZ30P050FZK

2.9 UPPER LAYER SECTION (1)



Caution in the MR INTERFACE Assy Replacement

Set the slide switches in accordance with applicable model when replacing the MR INTERFACE Assy.

	S4001 CBIT_1	S4004 CBIT_0
PDP-433P	→	→
PDP-433PU	→	→
PDP-433PE	←	→
PDP-433PG	←	→

Note 1 : When there is not S4004, set only S4001.
Note 2 : When there are not S4001 and S4004, setting is unnecessary.

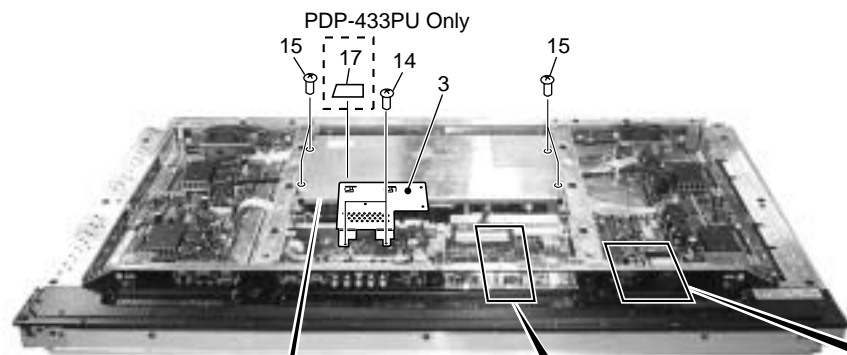
The diagram shows the MR INTERFACE Assy with the S4001 (CBIT_1) and S4004 (CBIT_0) components. The S4001 component is a slide switch with a double-headed arrow indicating its position. The S4004 component is a slide switch with a double-headed arrow indicating its position. The diagram shows the components being installed on the circuit board, with labels S4001 (CBIT_1) and S4004 (CBIT_0) indicating the specific parts and their positions.

UPPER LAYER SECTION(1) parts List

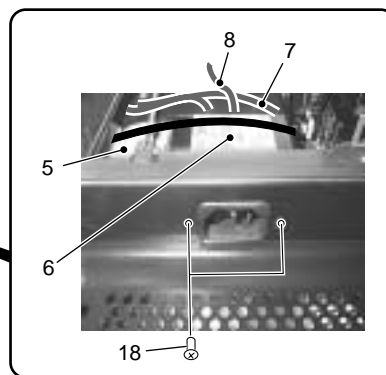
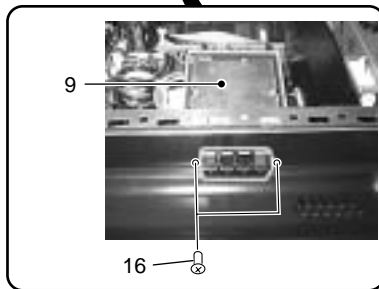
<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
1	MR INTERFACE Assy	AWZ6699
2	Terminal Panel	ANG2534
3	L6 Ferrite Core	ATX1037
4	J201 Flexible Flat Cable	ADD1194
5	J118 Wire P	ADX2765
6	J111 14P Housing Wire	ADX2730
7	L3 Toroidal Core	ATX1042
8	J214 3P Housing Wire	ADX2735
9	J104 3P Housing Wire	ADX2748
10	Ferrite Core Holder	AEC1818
11	J113 Wire PJ	ADX2742
12	J202 Flexible Flat Cable	ADD1194
13	Screw	TBZ40P080FZK
14	Screw	AMZ30P060FZK
15	Screw	BBA1051
16	Screw	PMZ26P080FZK
17	Screw	ABA1294

2.10 UPPER LAYER SECTION (2)

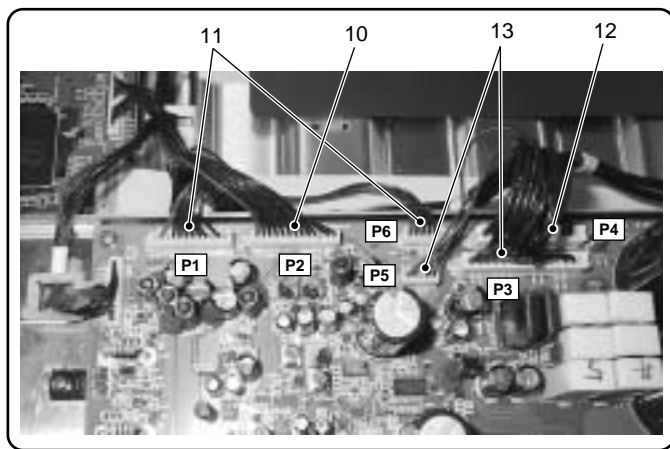
A



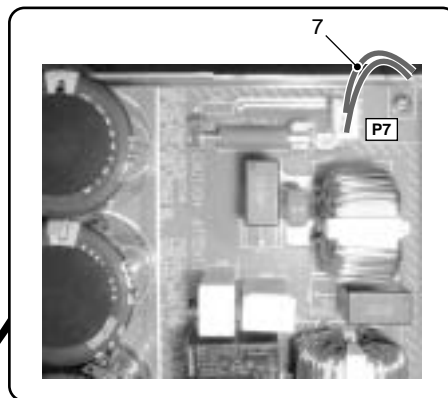
B



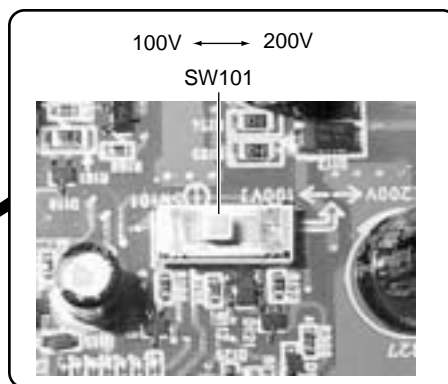
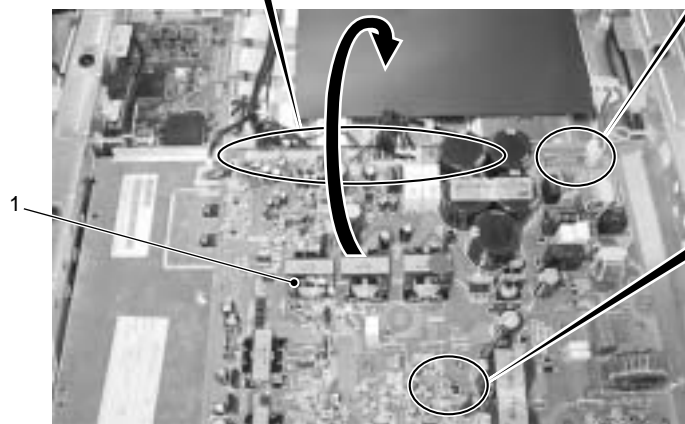
C



D



E



F

UPPER LAYER SECTION(2) parts List

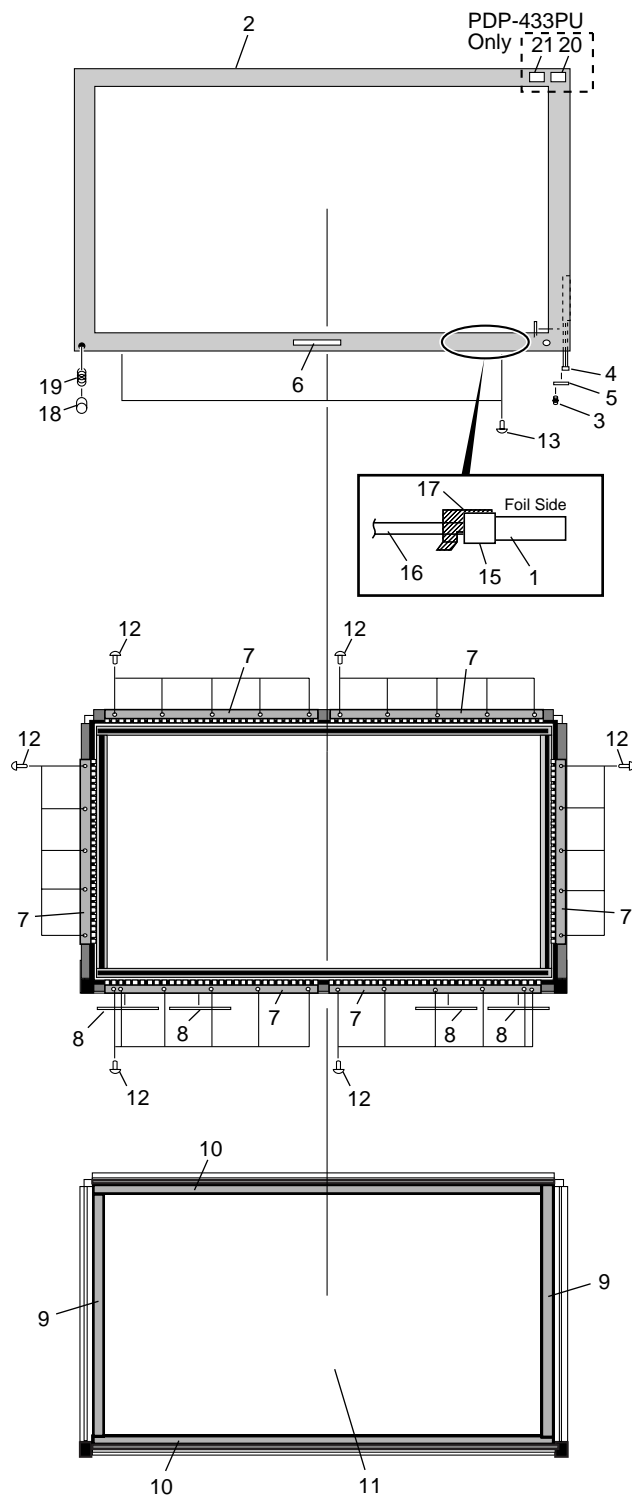
Mark No.	Description	Part No.	Mark No.	Description	Part No.
⚠ 1	SW Power Supply Module	AXY1059	11	J118 Wire P	ADX2765
2	•••••		12	J103 13P Housing Wire	ADX2766
3	IF Earth Metal	ANA1690	13	J102 Wire PE	ADX2738
⚠ 4	•••••		14	Screw	PMB30P060FNI
5	L1 Ferrite Core	ATX1032	15	Screw	AMZ30P060FZK
⚠ 6	CN1 AC Inlet with Filter	AKP1223	16	Screw	BPZ30P080FZK
7	J105 Wire PB	ADX2826	17	Solder Warning Label	See Contrast table (2)
8	J114 Earth Wire	ADX2709	18	Screw	BMZ30P060FZK
9	SP TERMINAL Assy	AWZ6688			
10	J101 13P Housing Wire	ADX2768			

(2) CONTRAST TABLE

PDP-433PU/KUC, PDP-433PE/WYVI6, PDP-433PE/WYVI6XK and PDP-433PG/TLDPKBR are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-433PU/KUC	PDP-433PE/ WYVI6	PDP-433PE/ WYVI6XK	PDP-433PG/ TLDPKBR
	17	Solder Warning Label	AAX2644	Not used	Not used	Not used

2.11 FRONT CASE SECTION



FRONT CASE SECTION parts List

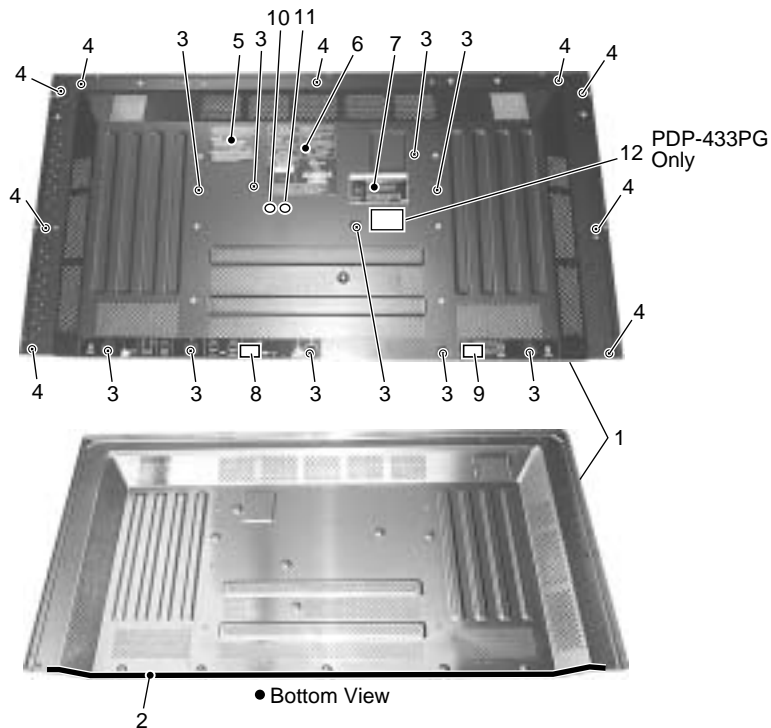
Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	FRONT KEY Assy	AWZ6656	12	Screw	ABZ30P050FZK
2	Front Case 43 (P)	AMB2725	13	Screw	VMZ30P060FZK
3	Rivet	AEC1877	14	•••••	
⚠ 4	L5 Ferrite Core	ATX1043	15	Serial Seal	AAX2609
5	Lead Cover (P)	AMR3341			
6	Pioneer Badge	AAM1091	16	J213 Flexible Flat Cable	ADD1193
NSP 7	Panel Holder (43)	ANG2519	NSP 17	Flexible Seal (P)	AEH1052
8	Spacer	AEC1896	18	Power Button	AAD4113
9	Panel Cushion V (43)	AED1201	19	Coil Spring	ABH1108
10	Panel Cushion H (43)	AED1200	20	Energy Star Label	See Contrast table (2)
11	Protect Panel Assy (43)	AMR3303	21	HDTV Label	See Contrast table (2)

(2) CONTRAST TABLE

PDP-433PU/KUC, PDP-433PE/WYVI6, PDP-433PE/WYVI6XK and PDP-433PG/TLDPKBR are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-433PU/KUC	PDP-433PE/ WYVI6	PDP-433PE/ WYVI6XK	PDP-433PG/ TLDPKBR
	20	Energy Star Label	AAX2865	Not used	Not used	Not used
	21	HDTV Label	AAX2891	Not used	Not used	Not used

2.12 REAR SECTION



REAR SECTION parts List

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Rear Case 43P	ANE1607	8	Terminal Display Label P Gray	See Contrast table (2)
2	Gasket L43	ANK1698	9	Terminal Display Label L Gray	See Contrast table (2)
3	Screw	AMZ30P060FZK	10	Label (Blue 8)	AAX2786
4	Screw	TBZ40P080FZK	11	Label (Green 8)	AAX2955
5	Cleaning Label Gray	AAX2926	12	MIC Label	See Contrast table (2)
NSP 6	Name Label (HD) Gray	See Contrast table (2)			
7	Bolt Caution Label Gray	AAX2928			

(2) CONTRAST TABLE

PDP-433PU/KUC, PDP-433PE/WYVI6, PDP-433PE/WYVI6XK and PDP-433PG/TLDPKBR are constructed the same except for the following:

Mark	No.	Symbol and Description	PDP-433PU/KUC	PDP-433PE/ WYVI6	PDP-433PE/ WYVI6XK	PDP-433PG/ TLDPKBR
NSP	6	Name Label (HD) Gray	AAL2426	AAL2425	AAL2429	AAL2427
	8	Terminal Display Label P Gray	AAX2929	AAX2929	AAX2939	AAX2929
	9	Terminal Display Label L Gray	AAX2930	AAX2935	AAX2940	AAX2930
	12	MIC Label	Not used	Not used	Not used	AAX2949

2.13 PDP SERVICE ASSY 433 (AWU1069)

PDP SERVICE ASSY 433 parts List

Mark No.	Description	Part No.	
	Panel Chassis (43) Assy	AWU1067	A
NSP	Front Chassis V (43)	ANA1702	
NSP	Front CHassis HU (43)	ANA1698	
NSP	Front Chassis HL	ANA1700	
	Sub Frame L	ANG2517	
	Sub Frame R	ANG2518	
	Scan IC Spring (43L)	ABK1029	
	Scan IC Spring (43R)	ABK1030	
NSP	Metal Fitting	ANG2464	B
	FPC Cushion 50	AEB1371	
NSP	PCB Spacer	AEC1121	
	Locking Card Spacer	AEC1736	
	Circuit Board Spacer	AEC1872	
	Circuit Board Spacer	AEC1873	
	Spacer	AEC1896	
NSP	Card Spacer	AEC1902	
	Wire Saddle	AEC1904	
	Panel Cushion H (43)	AED1200	
	Panel Cushion V (43)	AED1201	C
	V Cushion	AED1205	
	Insulation Sheet	AMR3263	
	Scan Sheet (43)	AMR3287	
	Card Corner Holder	BEC1144	
	Insulation Sheet C	AEC1927	
	Panel Caution Sheet	ARM1217	
	Brind Plate	AMR3313	
	Insulation Sheet	AMR3343	
	Screw	ABA1283	D
	Screw	ABA1294	
	Screw	ABZ30P060FMC	
	Screw	BMZ30P060FMC	
	Screw	PMB30P060FNI	
	Screw	VBB30P100FNI	
	Bolt	ABA1259	
	Corner Pad	AHA2293	
	Upper Carton	AHD3139	
	Under Carton	AHD3140	E
	Packing Sheet	AHG1291	
	Washer	WB80FZB	
	VR Cushion	AEB1374	
	Niplocker	AEC1803	
	Static Plate	AHK1013	
	Plate	AHK1014	
	Screw	BYC40P220FMC	
	Washer	WC60FZK	F

2.14 PANEL CHASSIS (43) ASSY (AWU1067)

PANEL CHASSIS(43) ASSY parts List

A	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	
	NSP	SCAN FUKUGO ASSY	AWV1969	*
	NSP	ADDRESS FUKUGO ASSY	AWV1928	*
	NSP	Address Module (IC1 - IC32)	AXF1114	
	NSP	FPC (J1,J2)	ADY1079	
	NSP	FPC (J3,J4)	ADY1080	
	NSP	1..Chassis Assy (43)	ANA1712	
	NSP	2..Chassis (43)	ANA1668	
	NSP	2..Base Chassis (43)	ANA1669	
	NSP	2..Scan Heatsink (43)	ANH1610	
B	NSP	2..Corner Angle A	ANG2457	
	NSP	2..Corner Angle B	ANG2458	
		2..Insulation Seet A	AEC1923	
		2..Insulation Seet B	AEC1924	
	NSP	2..Tube Cover	AMR3262	
		2..Rear Coner Label	AAX2862	
		2..Silicone Sheet 43	AEH1043	
		2..Adhesive Tape 43	AEH1044	
		2..Adhesive Tape B 43	AEH1054	
C		2..Panel Silicone Sheet	AEH1055	
		2..Silicone Sheet B43	AEH1056	
		Pin Grommet	AEC1015	
		Scan Silicone Sheet	AEH1058	
	NSP	Plasma Panel Assy (43)	AAV1239	
		Screw	VBB30P100FNI	
		Protection Tape	AEH1059	
D	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	
	NSP	1..SCAN FUKUGO ASSY	AWV1969	
		2..SCAN (A) ASSY	AWZ6724	
		2..SCAN (B) ASSY	AWZ6725	
		2..X CONNECTOR (A) ASSY	AWZ6726	
		2..X CONNECTOR (B) ASSY	AWZ6727	
		2..BRIDGE A ASSY	AWZ6728	
		2..BRIDGE B ASSY	AWZ6729	
		2..BRIDGE C ASSY	AWZ6730	
		2..BRIDGE D ASSY	AWZ6731	
	NSP	1..ADDRESS FUKUGO ASSY	AWV1928	
E	NSP	2..ADR CONNECT A ASSY	AWZ6678	
	NSP	2..ADR CONNECT B ASSY	AWZ6679	
	NSP	2..ADR CONNECT C ASSY	AWZ6680	
	NSP	2..ADR CONNECT D ASSY	AWZ6681	
		2..ADR RESONANCE ASSY	AWZ6751	
F	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>	

■ Caution in Replacement of Chassis Block

Please order the PDP Service Assy 433 (AWU1069) when replacing the Chassis block.
PDP Service Assy 433 is all common use parts for business, consumer models and module.
It is supplied by installing the Circuit Board Spacer (AEC1872) and the Wire Saddle (AEC1904) as follows.
Therefore it is necessary to remove them in accordance with the models.

Confirm the character of the seal carved near the parts, and then remove them.

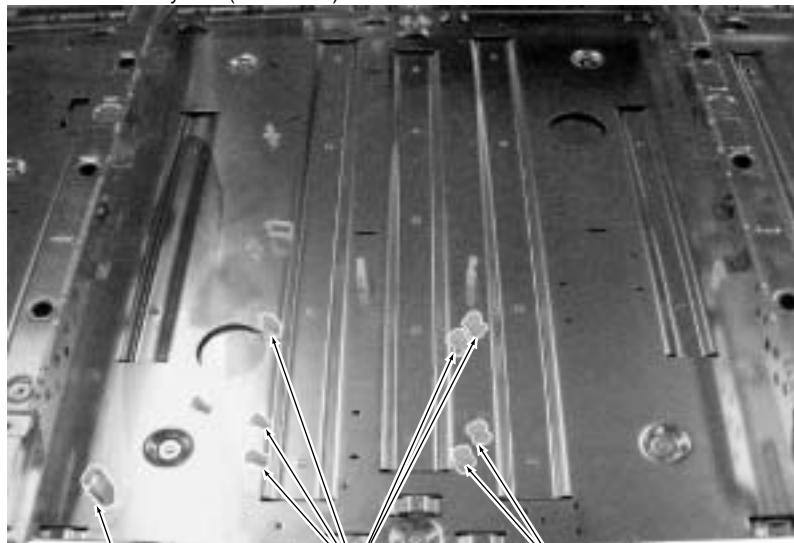
P : for Consumer models only

W : for Module only

PW : Common use for Consumer models and Module

* In case of this unit(433PU, 433PE or 433PG), remove the part that "W" is marked(one part).

PDP Service Assy 433 (AWU1069)



Wire Saddle
(AEC1904)

Circuit Board Spacer
(AEC1872)

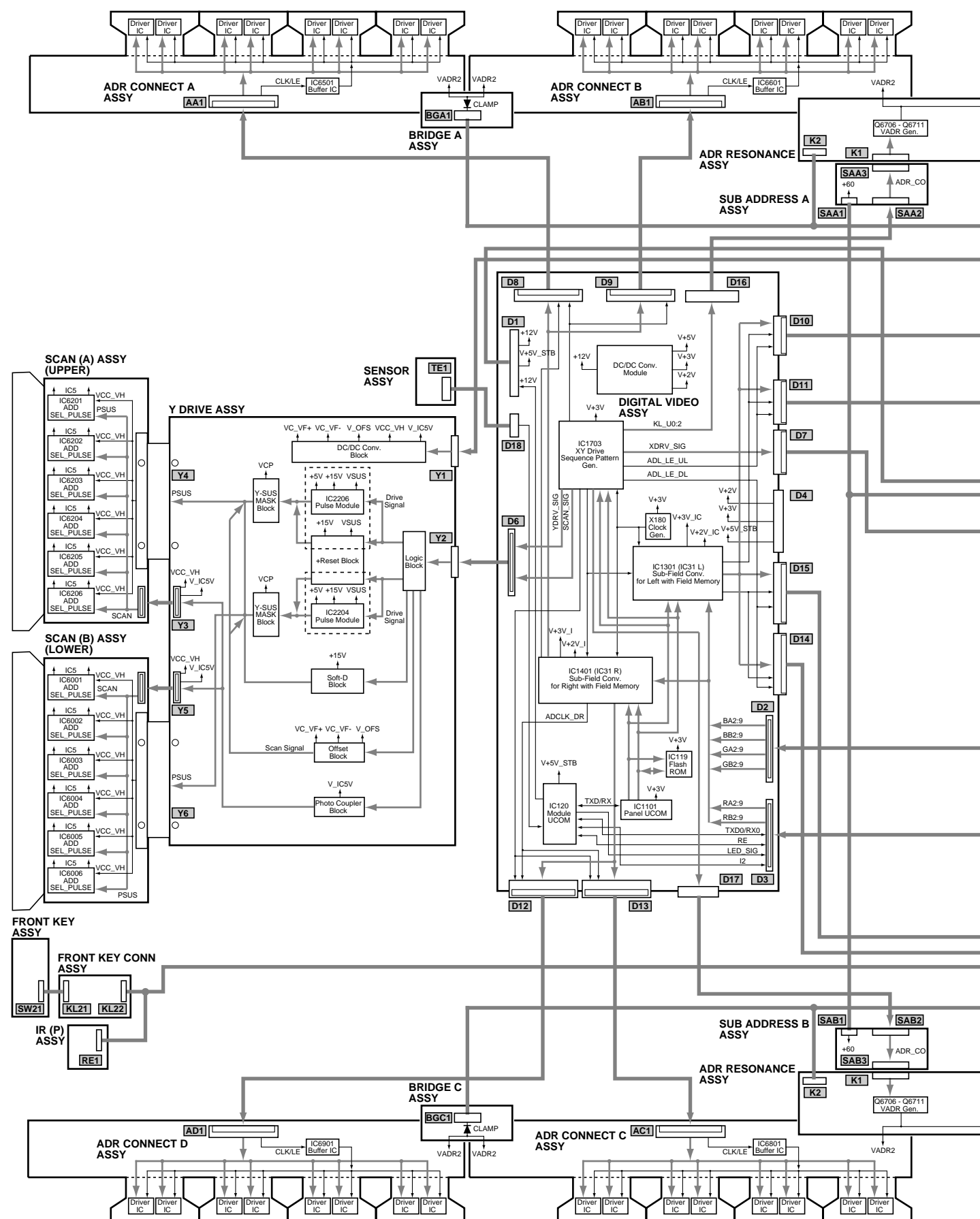
Circuit Board Spacer
(AEC1872)

(There is marking of "P" nearby.)

3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

3.1 BLOCK DIAGRAM

3.1.1 OVERALL DIAGRAM



A



3.1.2 MR INTERFACE ASSY

A

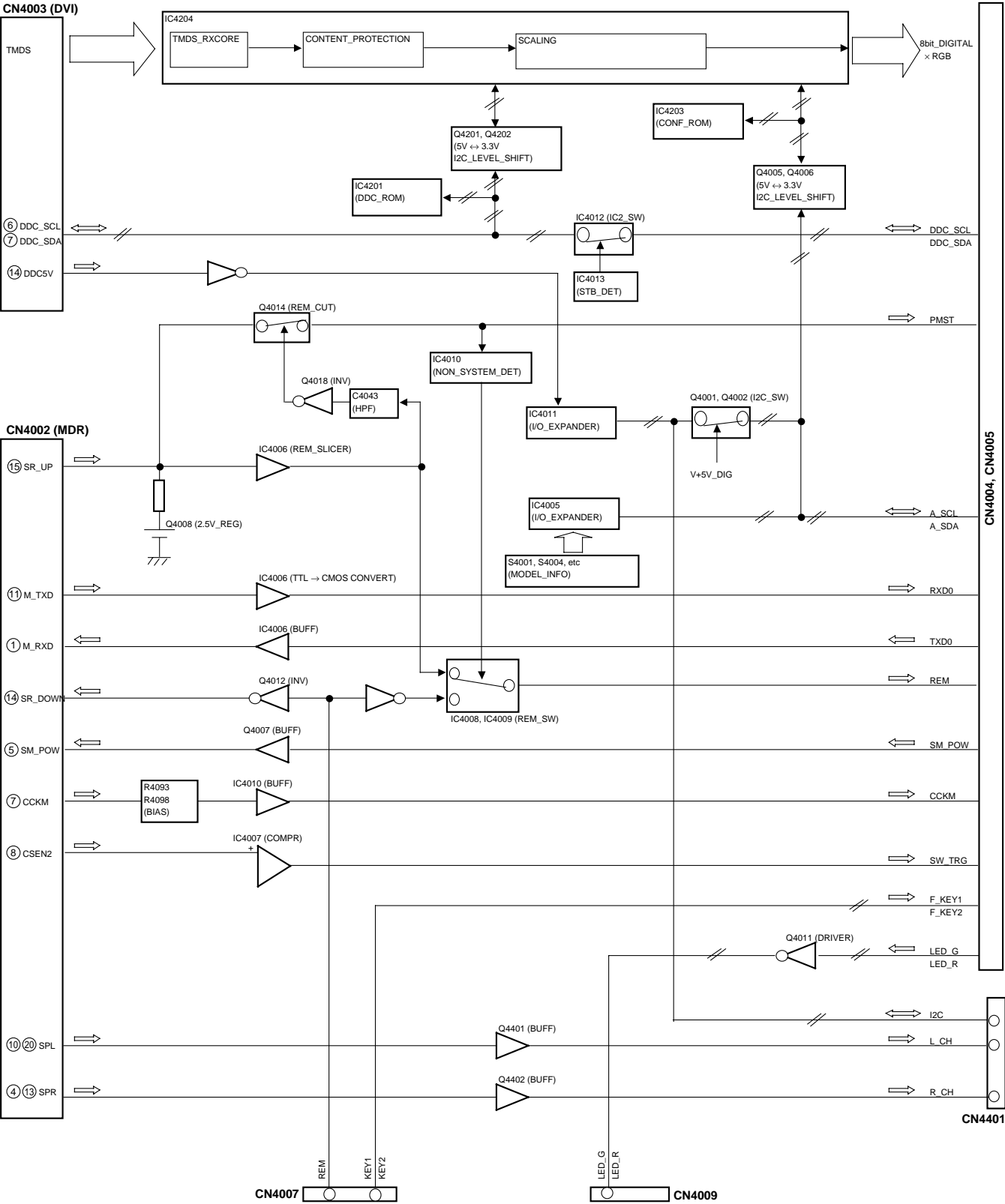
B

C

D

E

F



■ Voltages

CN4002 (MDR Connector) (↔ Media Receiver)

No.	Name	Description	Voltage at INPUT4 NTSC Input
1	M_RXD	232C bus (PDP → MR)	0-5V swing square wave
2	GND		
3	SENCE	Connecting detection for MR	0.0V DC
4	SPR	Audio signal R ch	Analog audio signal wave
5	SMPOW	MR relay control	3.5V DC
6	GND		
7	CCKM	System activation detection	1.9V DC
8	CSEN2	System activation signal	5.0V DC
9	CSEN1	Not used	
10	SPL	Audio signal L ch	Analog audio signal wave
11	M_TXD	232C bus (MR → PDP)	0-3.3V swing square wave
12	GND		
13	SPR	Audio signal R ch	Analog audio signal wave
14	SR_DW	Remote control signal	5.0V DC
15	SR_UP	MDR connecting detection signal multiplex remote control signal	3.75V DC
16	GND		
17	FRASH_W	Not used	
18	SRST	Not used	
19	GND		
20	SPL	Audio signal L ch	Analog audio signal wave

CN4003 (DVI Connector) (↔ Media Receiver)

No.	Name	Description	Voltage at INPUT4 NTSC Input
1	RX2-	DVI signal	DVI signal
2	RX2+	DVI signal	DVI signal
3	GND		
4	NC		
5	NC		
6	DDC_SCL	I2C for DDC	0-5V swing square wave
7	DDC_SDA	I2C for DDC	0-5V swing square wave
8	NC		
9	RX1-	DVI signal	DVI signal
10	RX1+	DVI signal	DVI signal
11	GND		
12	NC		
13	NC		
14	DDC_+5V	I2C power supply for DDC	5.0V DC
15	GND		
16	HPD	HOT_PLUG detection	5.0V DC
17	RX0-	DVI signal	DVI signal
18	RX0+	DVI signal	DVI signal
19	GND		
20	NC		
21	NC		
22	GND		
23	RXC+	DVI signal	DVI signal
24	RXC-	DVI signal	DVI signal

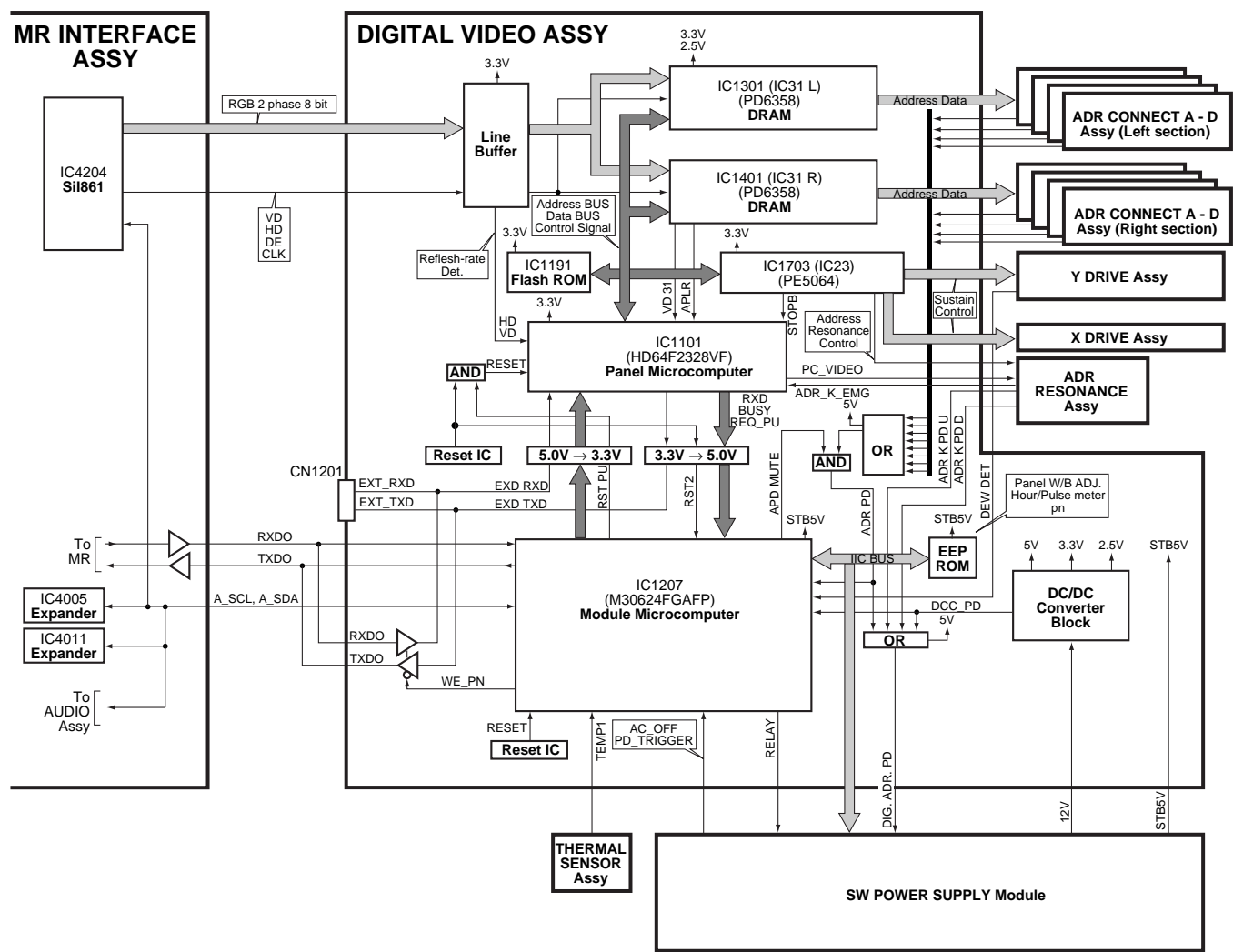
CN4004 (50P_FFC Connector) (↔ DIGITAL VIDEO Assy)

No.	Name	Description	Voltage at INPUT4 NTSC Input
1	GND		
2	GND		
3	NC		
4	NC		
5	NC		
6	NC		
7	BB0	8 bit video signal	0-3.3V swing square wave
8	BA0	8 bit video signal	0-3.3V swing square wave
9	BB1	8 bit video signal	0-3.3V swing square wave
10	BA1	8 bit video signal	0-3.3V swing square wave
11	BB2	8 bit video signal	0-3.3V swing square wave
12	BA2	8 bit video signal	0-3.3V swing square wave
13	BB3	8 bit video signal	0-3.3V swing square wave
14	BA3	8 bit video signal	0-3.3V swing square wave
15	BB4	8 bit video signal	0-3.3V swing square wave
16	BA4	8 bit video signal	0-3.3V swing square wave
17	BB5	8 bit video signal	0-3.3V swing square wave
18	BA5	8 bit video signal	0-3.3V swing square wave
19	BB6	8 bit video signal	0-3.3V swing square wave
20	BA6	8 bit video signal	0-3.3V swing square wave
21	BB7	8 bit video signal	0-3.3V swing square wave
22	BA7	8 bit video signal	0-3.3V swing square wave
23	GND		
24	GND		
25	NC		
26	NC		
27	NC		
28	NC		
29	GB0	8 bit video signal	0-3.3V swing square wave
30	GA0	8 bit video signal	0-3.3V swing square wave
31	GB1	8 bit video signal	0-3.3V swing square wave
32	GA1	8 bit video signal	0-3.3V swing square wave
33	GB2	8 bit video signal	0-3.3V swing square wave
34	GA2	8 bit video signal	0-3.3V swing square wave
35	GB3	8 bit video signal	0-3.3V swing square wave
36	GA3	8 bit video signal	0-3.3V swing square wave
37	GB4	8 bit video signal	0-3.3V swing square wave
38	GA4	8 bit video signal	0-3.3V swing square wave
39	GB5	8 bit video signal	0-3.3V swing square wave
40	GA5	8 bit video signal	0-3.3V swing square wave
41	GB6	8 bit video signal	0-3.3V swing square wave
42	GA6	8 bit video signal	0-3.3V swing square wave
43	GB7	8 bit video signal	0-3.3V swing square wave
44	GA7	8 bit video signal	0-3.3V swing square wave
45	GND		
46	GND		
47	NC		
48	NC		
49	GND		
50	GND		

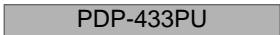
CN4005 (50P_FFC Connector) (↔ DIGITAL VIDEO Assy)

No.	Name	Description	Voltage at INPUT4 NTSC Input
1	NC		
2	NC		
3	NC		
4	NC		
5	RB0	8 bit video signal	0-3.3V swing square wave
6	RA0	8 bit video signal	0-3.3V swing square wave
7	RB1	8 bit video signal	0-3.3V swing square wave
8	RA1	8 bit video signal	0-3.3V swing square wave
9	RB2	8 bit video signal	0-3.3V swing square wave
10	RA2	8 bit video signal	0-3.3V swing square wave
11	RB3	8 bit video signal	0-3.3V swing square wave
12	RA3	8 bit video signal	0-3.3V swing square wave
13	RB4	8 bit video signal	0-3.3V swing square wave
14	RA4	8 bit video signal	0-3.3V swing square wave
15	RB5	8 bit video signal	0-3.3V swing square wave
16	RA5	8 bit video signal	0-3.3V swing square wave
17	RB6	8 bit video signal	0-3.3V swing square wave
18	RA6	8 bit video signal	0-3.3V swing square wave
19	RB7	8 bit video signal	0-3.3V swing square wave
20	RA7	8 bit video signal	0-3.3V swing square wave
21	GND		
22	CLK	Clock	0-3.3V swing square wave (40MHz)
23	GND		
24	DE	Data enable	0-3.3V swing square wave (+ polarity)
25	GND		
26	HD	Horizontal sync. signal	0-3.3V swing square wave (- polarity 48.4kHz)
27	GND		
28	VD	Vertical sync. signal	0-3.3V swing square wave (- polarity 60.0Hz)
29	GND		
30	A_SCL	I2C bus	0-5V swing square wave
31	F_KEY1	Front key signal 1	5.0V DC
32	PMST	MDR connection Detect signal	3.75V DC
33	SMPOW	MR relay control	5.0V DC
34	A_MUTE	Audio mute	0.0V DC
35	CCKM	System activation detect	1.9V DC
36	M_STATE	Si1861 I2C bus master information	0.0V DC
37	SW_STC	Not used	
38	A_NG	Not used	
39	SW_TRG	System activation signal	5.0V DC
40	F_KEY2	Front key signal 2	5.0V DC
41	A_SDA	I2C bus	0-5V swing square wave
42	*LED_G	Green LED control signal	0.0V DC
43	TXD0	232C bus	0-5V swing square wave
44	*LED_R	Red LED control signal	5.0V DC
45	RXD0	232C bus	0-5V swing square wave
46	DDC_SCL	I2C for DDC	0-5V swing square wave
47	REM	Remote control signal	5.0V DC
48	DDC_SDA	I2C for DDC	0-5V swing square wave
49	GND		
50	GND		

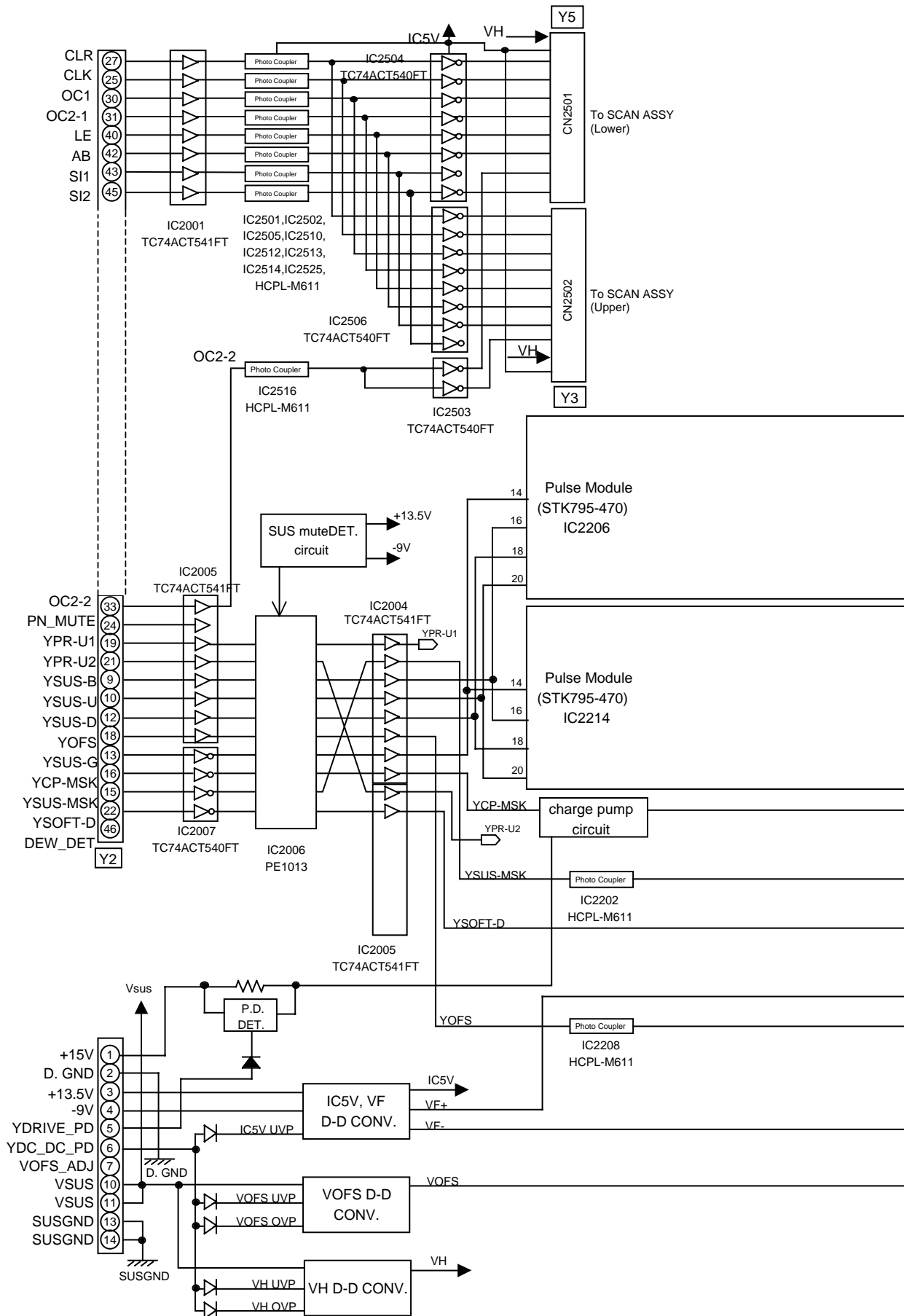
3.1.3 DIGITAL VIDEO ASSY

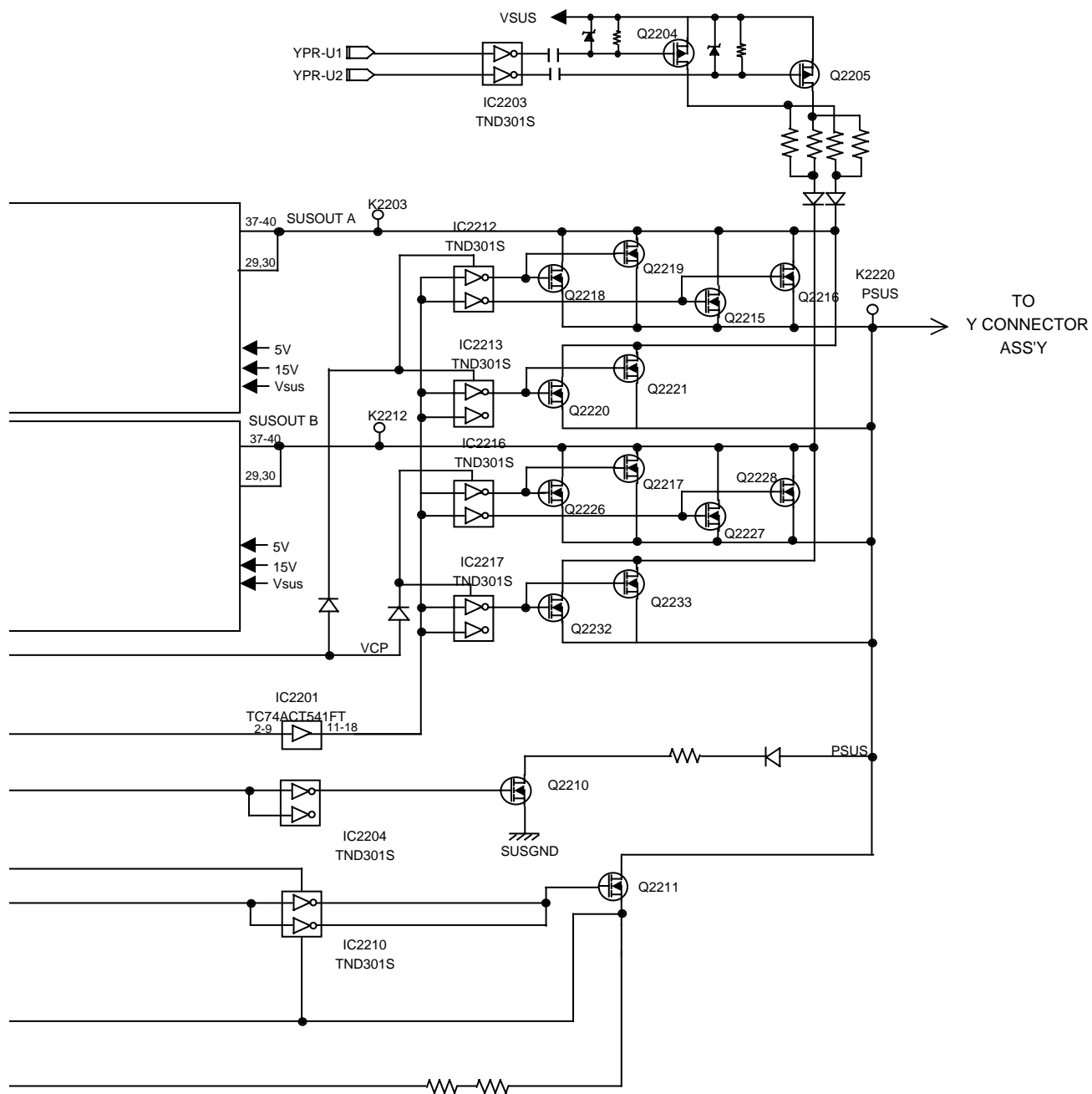


A ■ B ■ C ■ D ■ E ■ F



3.1.5 Y DRIVE ASSY





3.1.6 SUB ADDRESS A and B ASSYS

A

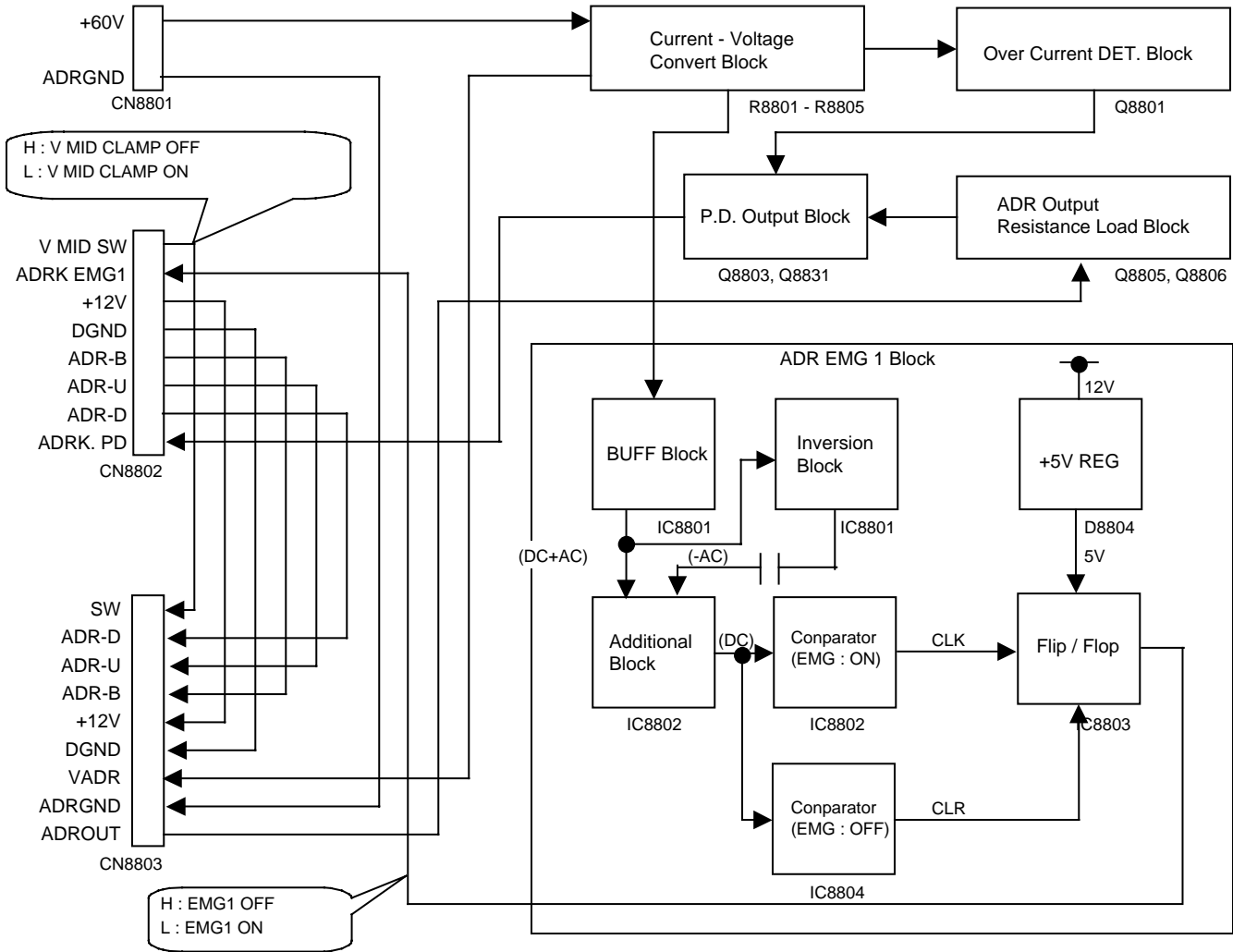
B

C

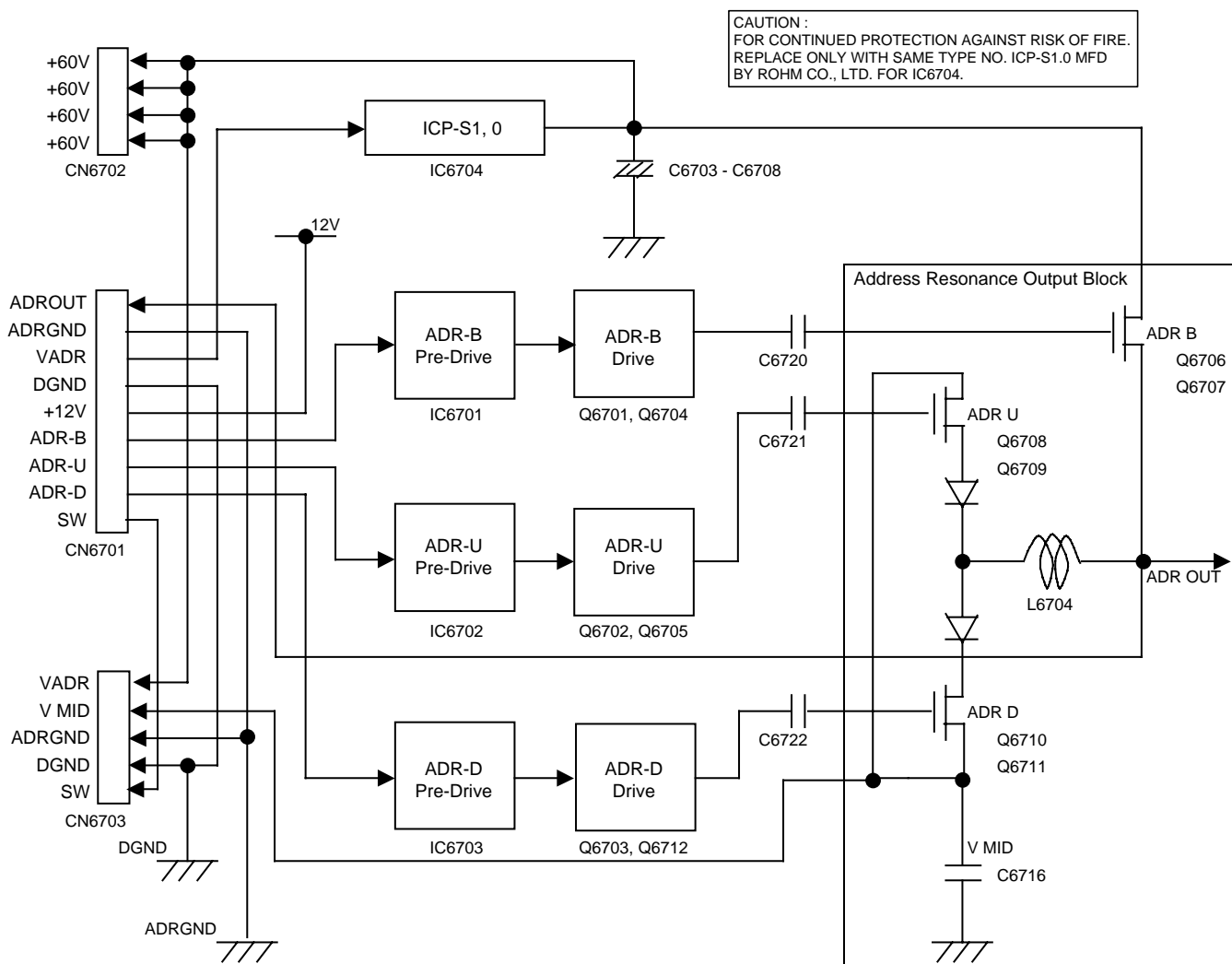
D

E

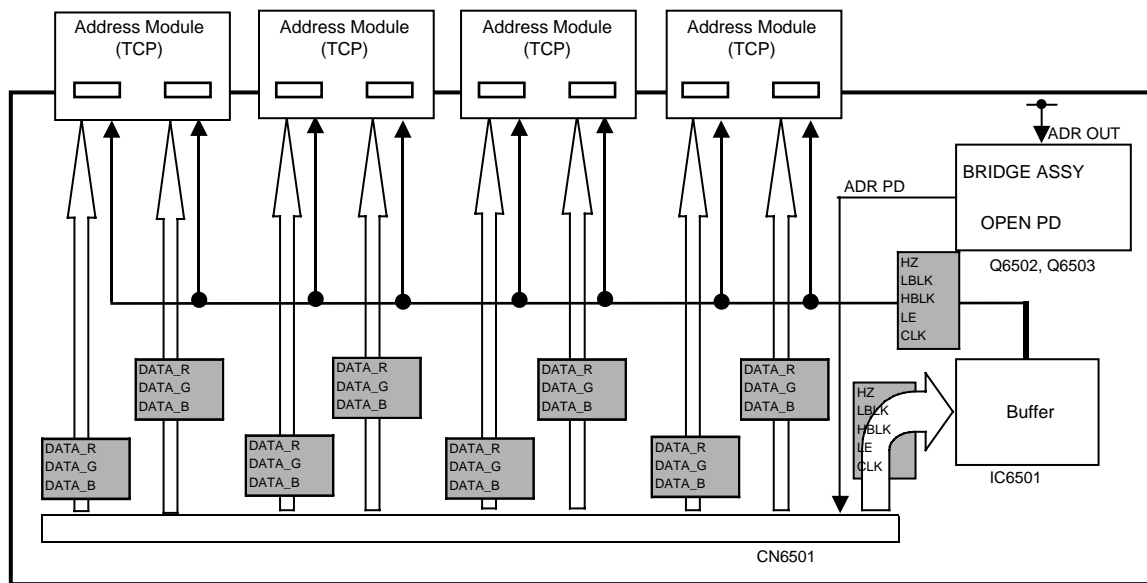
F



3.1.7 ADR RESONANCE ASSY



3.1.8 ADR CONNECT A, B, C and D ASSYS



3.1.9 AUDIO AMP and SP TERMINAL ASSYS

AUDIO AMP ASSY

IC5202 (CXA2021S)

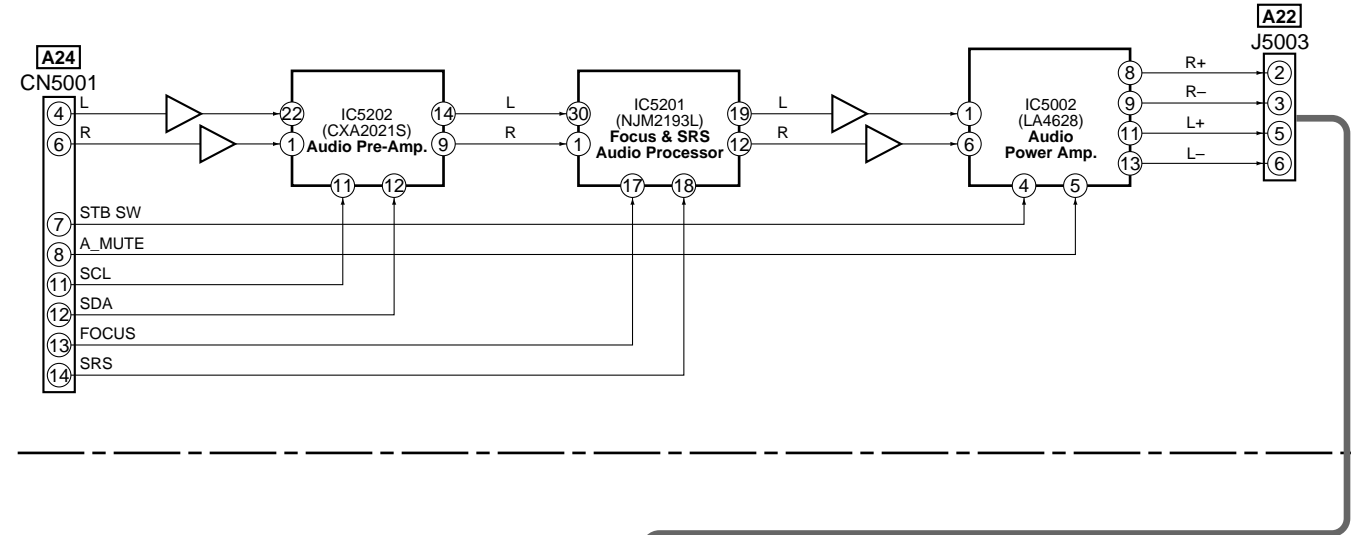
No.	Voltage (V)	No.	Voltage (V)
1	5.9	12	5.25
2	0	13	1.73
3	5.95	14	5.95
4	5.94	15	5.92
5	5.98	16	5.91
6	6.02	17	5.93
7	6.02	18	5.92
8	7.38	19	5.94
9	5.95	20	5.95
10	1.55	21	11.91
11	5.24	22	5.9

IC5201 (NJM2193L)

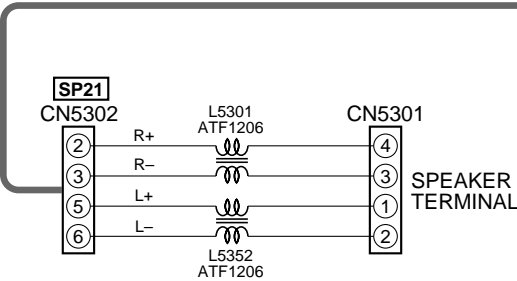
No.	Voltage (V)	No.	Voltage (V)
1	5.95	16	11.91
2	5.94	17	0
3	5.84	18	0
4	5.98	19	5.98
5	5.98	20	5.91
6	5.97	21	5.97
7	5.98	22	5.98
8	5.98	23	5.98
9	5.98	24	5.98
10	5.97	25	5.97
11	5.97	26	5.98
12	5.98	27	5.98
13	5.96	28	5.84
14	5.98	29	5.94
15	0	30	5.95

IC5002 (LA4628)

No.	Voltage (V)
1	1.6
2	7.5
3	0
4	3.37
5	2.29
6	1.6
7	1.97
8	7.3
9	7.3
10	0
11	7.3
12	0
13	7.3
14	15

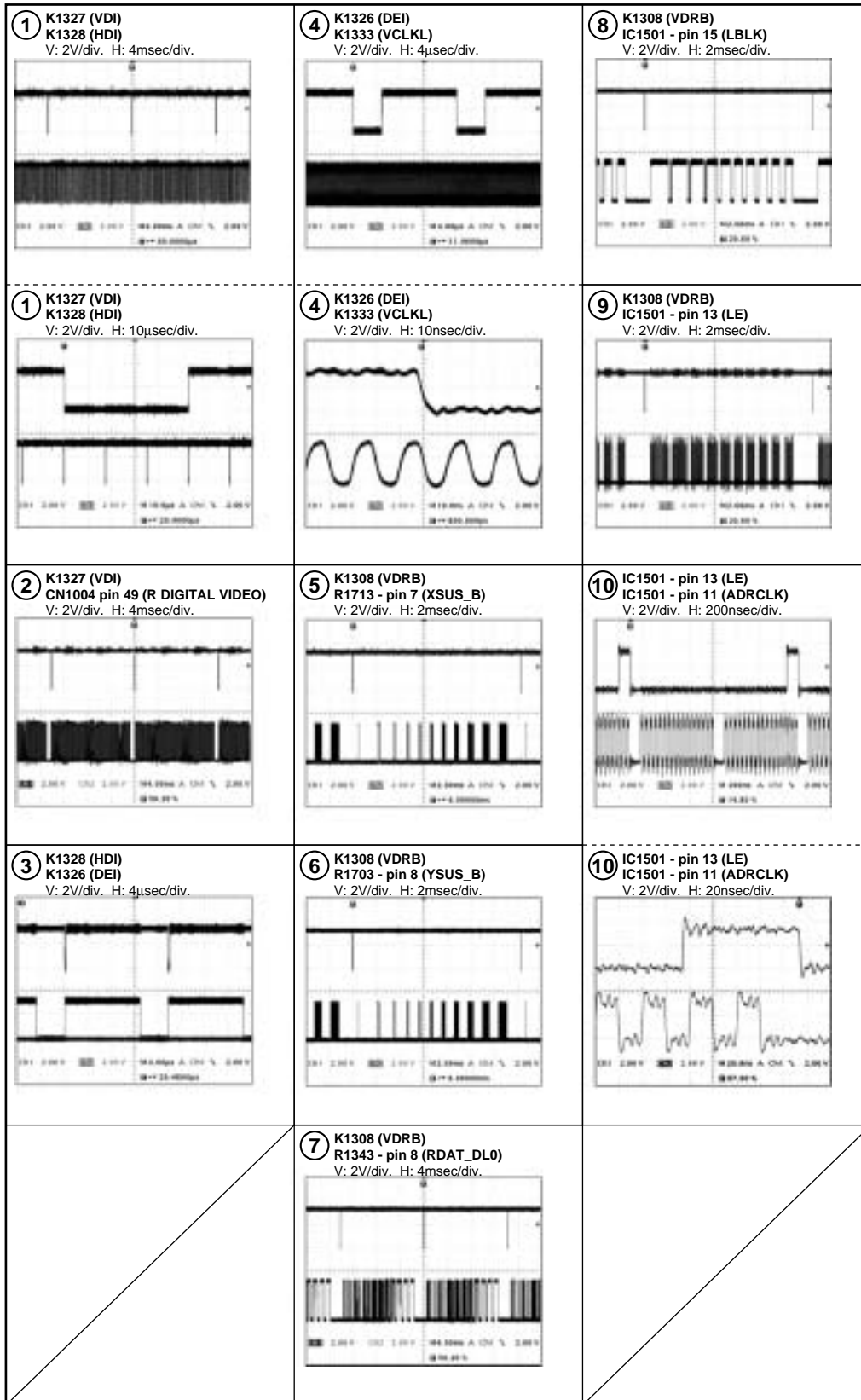


SP TERMINAL ASSY

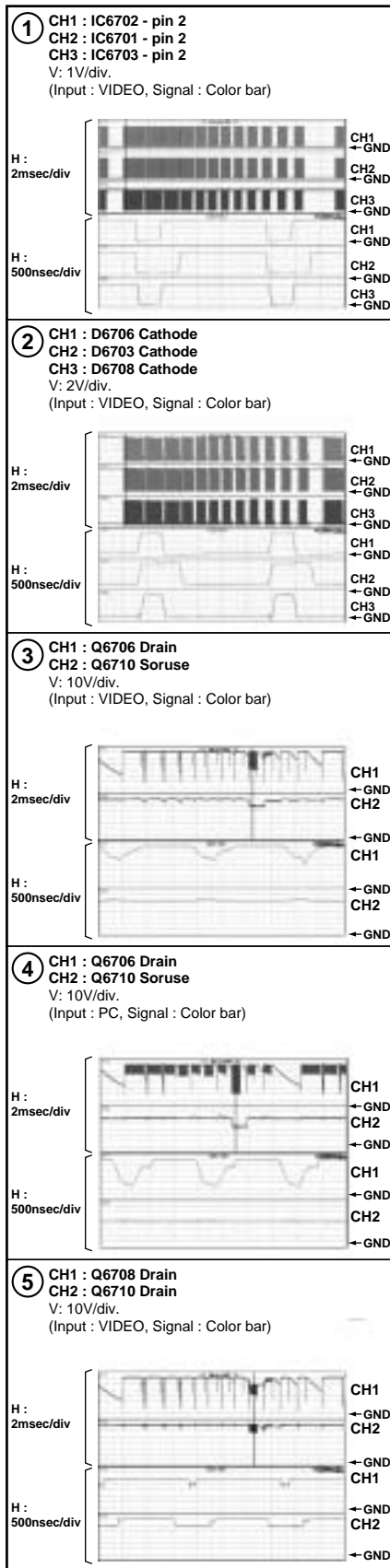


3.2 WAVEFORMS

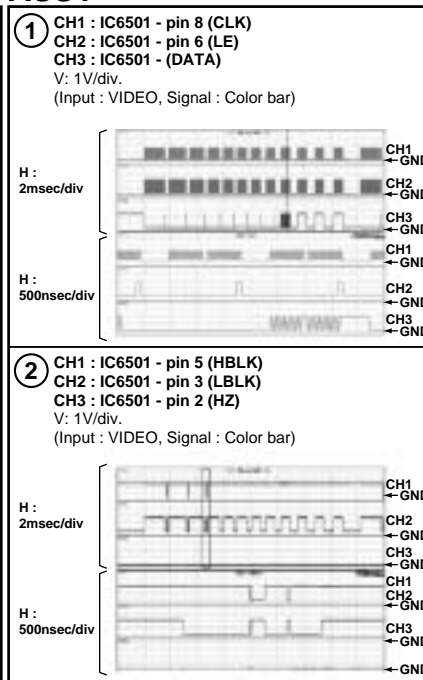
DIGITAL VIDEO ASSY



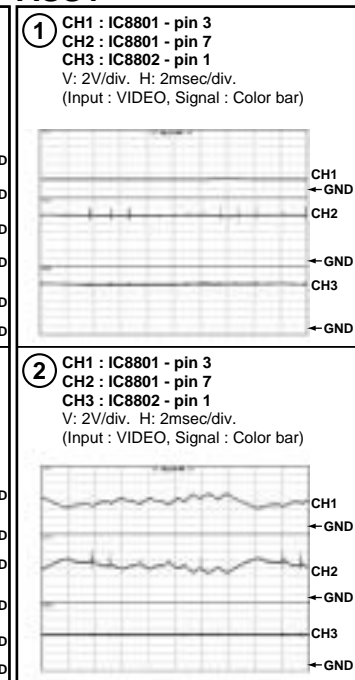
ADR RESONANCE ASSY



ADR CONNECT A - D ASSY



SUB ADDRESS A, B ASSY



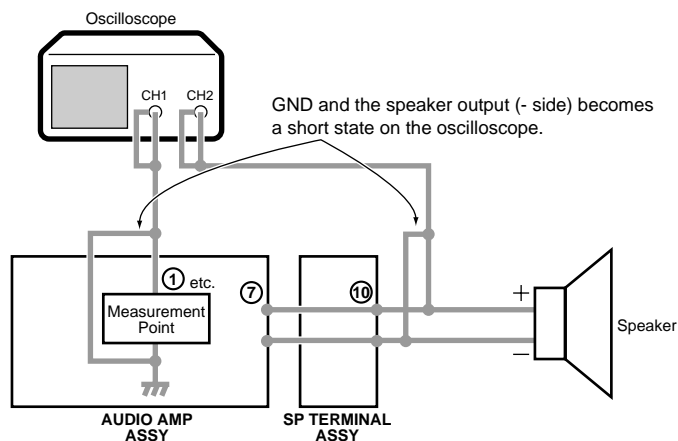
AUDIO SECTION

● Measurement condition

Video Input Signal : FULL FIELD COLOR-BAR
 Audio Input Signal : 1kHz Sine Wave 0.2Vrms
 Volume : 60 (MAX)
 AV Selection : STANDARD
 SRS : OFF
 FOCUS : OFF

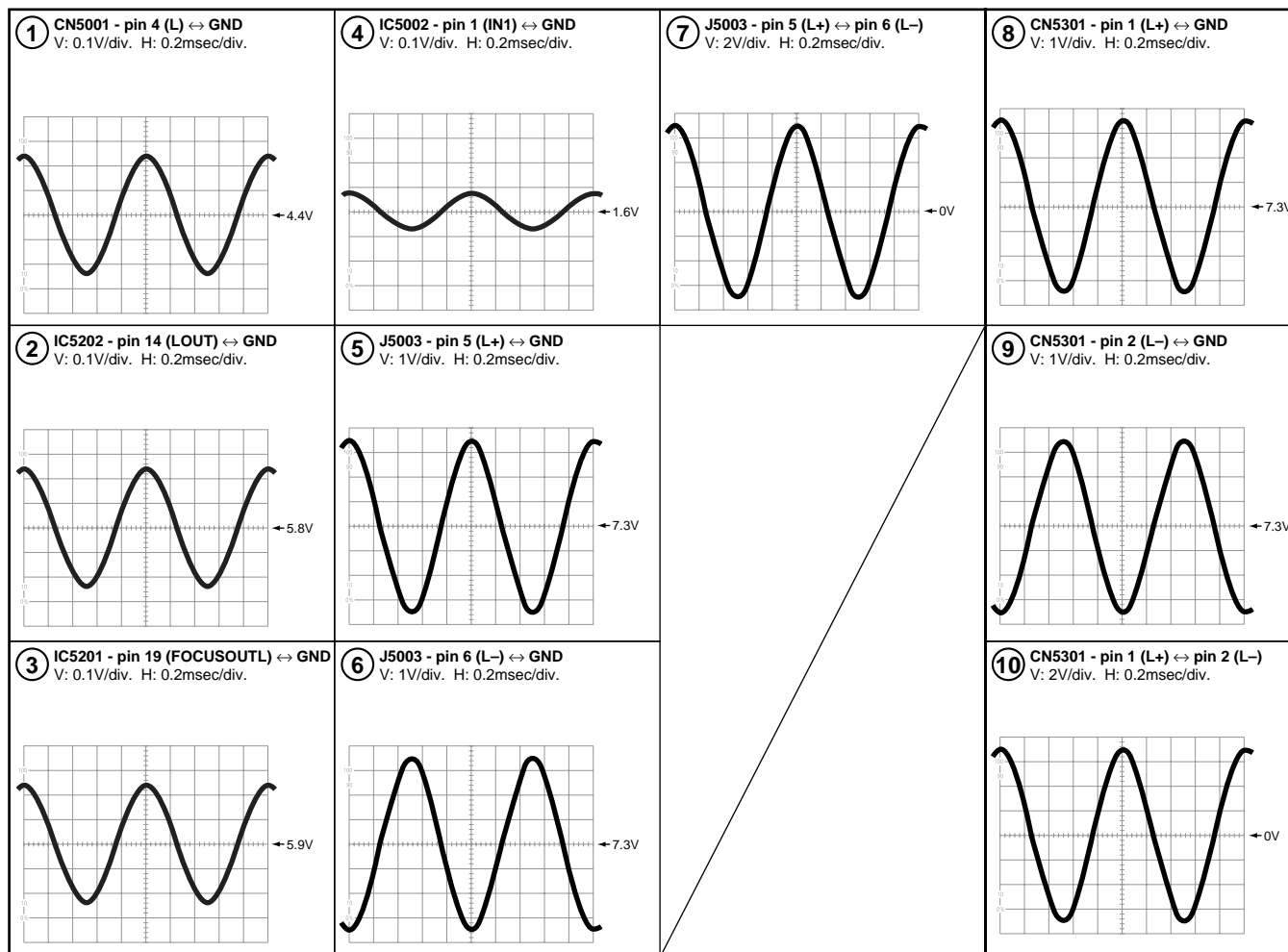
● Caution in the measurement

Audio Power Amp. (IC5002: LA4628) on the AUDIO AMP Assy is BTL system, and, as for the power amplifier and the speaker output, \pm poles becomes hot for the ground. Therefore be careful not to connect the measuring instrument as the following figures. (Power amplifier may be damaged.)



Wrong connection example

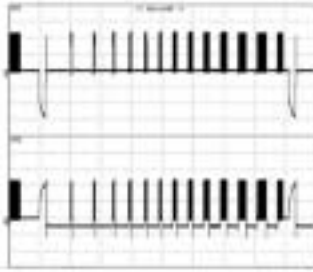
AUDIO AMP ASSY



Sustain Waveforms

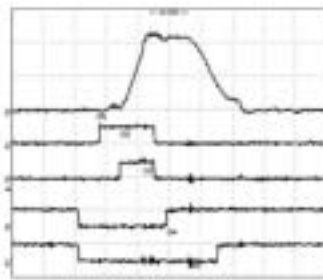
● Sustain Waveform (1 field)

ch 1 : K3107 (X.PSUS) - K3201 (SUSGND)
V: 100V/div. H: 2msec/div.
ch 2 : K2220 (Y.PSUS) - K2219 (SUSGND)
V: 100V/div. H: 2msec/div.



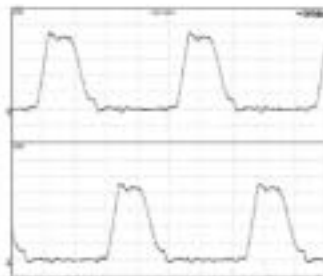
● Sustain Waveform

ch 1 : K2220 (Y.PSUS) - K2219 (SUSGND)
V: 100V/div. H: 500nsec/div.
ch 2 : K2028 (YSUS_U) - K2024 (DGND)
V: 10V/div. H: 500nsec/div.
ch 3 : K2027 (YSUS_B) - K2024 (DGND)
V: 10V/div. H: 500nsec/div.
ch 4 : K2029 (YSUS_D) - K2024 (DGND)
V: 10V/div. H: 500nsec/div.
ch 5 : K2037 (YSUS_G) - K2024 (DGND)
V: 10V/div. H: 500nsec/div.



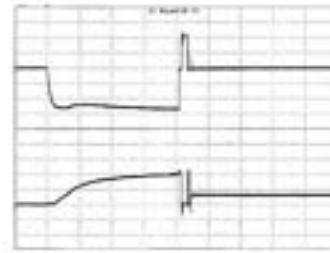
● Sustain Waveform (1 field)

ch 1 : K3107 (X.PSUS) - K3201 (SUSGND)
V: 50V/div. H: 1μsec/div.
ch 2 : K2220 (Y.PSUS) - K2219 (SUSGND)
V: 50V/div. H: 1μsec/div.



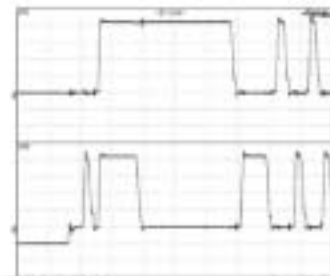
● Sustain Waveform (reset pulse)

ch 1 : K3107 (X.PSUS) - K3201 (SUSGND)
V: 100V/div. H: 100μsec/div.
ch 2 : K2220 (Y.PSUS) - K2219 (SUSGND)
V: 100V/div. H: 100μsec/div.



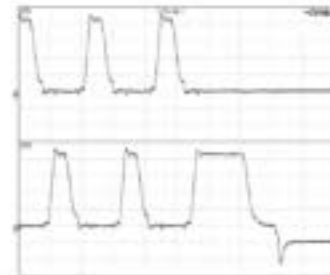
● Sustain Waveform (sustain) First half

ch 1 : K3107 (X.PSUS) - K3201 (SUSGND)
V: 50V/div. H: 5μsec/div.
ch 2 : K2220 (Y.PSUS) - K2219 (SUSGND)
V: 50V/div. H: 5μsec/div.



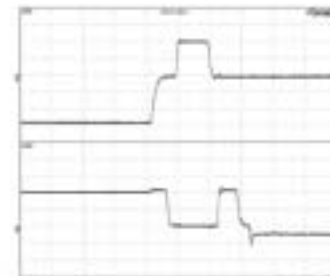
● Sustain Waveform (sustain) Last half

ch 1 : K3107 (X.PSUS) - K3201 (SUSGND)
V: 50V/div. H: 2μsec/div.
ch 2 : K2220 (Y.PSUS) - K2219 (SUSGND)
V: 50V/div. H: 2μsec/div.



● Sustain Waveform (reset pulse)

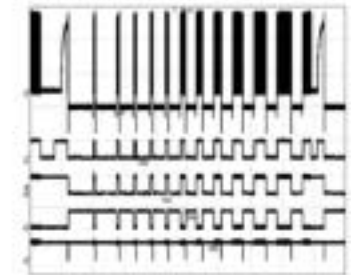
ch 1 : K3107 (X.PSUS) - K3201 (SUSGND)
V: 100V/div. H: 5μsec/div.
ch 2 : K2220 (Y.PSUS) - K2219 (SUSGND)
V: 100V/div. H: 5μsec/div.



Drive Pulse Waveforms

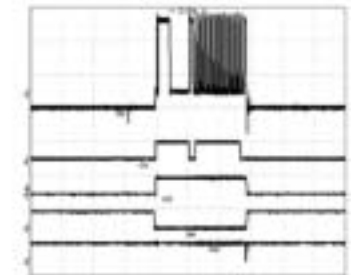
● Y Drive Pulse Control Waveform (1 field)

ch 1 : K2220 (Y.PSUS) - K2219 (SUSGND)
V: 100V/div. H: 2msec/div.
ch 2 : K2039 (YCP_MSK) - K2024 (DGND)
V: 10V/div. H: 2msec/div.
ch 3 : K2040 (YSUS_MSK) - K2024 (DGND)
V: 10V/div. H: 2msec/div.
ch 4 : K2041 (OFS) - K2024 (DGND)
V: 10V/div. H: 2msec/div.
ch 5 : K2053 (SOFT_D) - K2024 (DGND)
V: 10V/div. H: 2msec/div.



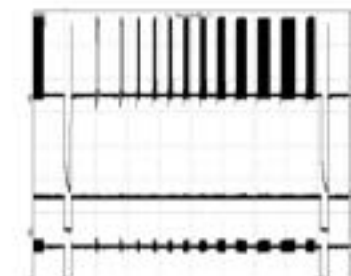
● Y Drive Pulse Control Waveform (1 sub-field)

ch 1 : K2220 (Y.PSUS) - K2219 (SUSGND)
V: 100V/div. H: 50μsec/div.
ch 2 : K2039 (YCP_MSK) - K2024 (DGND)
V: 10V/div. H: 50μsec/div.
ch 3 : K2040 (YSUS_MSK) - K2024 (DGND)
V: 10V/div. H: 50μsec/div.
ch 4 : K2041 (OFS) - K2024 (DGND)
V: 10V/div. H: 50μsec/div.
ch 5 : K2053 (SOFT_D) - K2024 (DGND)
V: 10V/div. H: 50μsec/div.




● X Drive Pulse Control Waveform (1 field)

ch 1 : K3107 (X.PSUS) - K3201 (SUSGND)
V: 100V/div. H: 2msec/div.
ch 2 : K3017 (XCP_MSK) - K3005 (DGND)
V: 10V/div. H: 2msec/div.
ch 3 : K3015 (XSUS_MSK) - K3005 (DGND)
V: 5V/div. H: 2msec/div.



5. PCB PARTS LIST


NOTES: ● Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.


● The  mark found on some component parts indicates the importance of the safety factor of the part.


Therefore, when replacing, be sure to use parts of identical designation.


● When ordering resistors, first convert resistance values into code form as shown in the following examples.

Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).

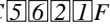
560 Ω \rightarrow 56 x 10^1 \rightarrow 561 RD1/4PU  J

47k Ω \rightarrow 47 x 10^3 \rightarrow 473 RD1/4PU  J

0.5 Ω \rightarrow R50 RN2H  K

1 Ω \rightarrow 1R0 RS1P  K

Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω \rightarrow 562 x 10^1 \rightarrow 5621 RN1/4PC  F

Mark No. Description Part No.

LIST OF ASSEMBLIES

NSP	1..SCAN FUKUGO ASSY	AWV1969
	2..SCAN (A) ASSY	AWZ6724
	2..SCAN (B) ASSY	AWZ6725
	2..X CONNECTOR (A) ASSY	AWZ6726
	2..X CONNECTOR (B) ASSY	AWZ6727
	2..BRIDGE A ASSY	AWZ6728
	2..BRIDGE B ASSY	AWZ6729
	2..BRIDGE C ASSY	AWZ6730
	2..BRIDGE D ASSY	AWZ6731

NSP	1..ADDRESS FUKUGO ASSY	AWV1928
NSP	2..ADR CONNECT A ASSY	AWZ6678
NSP	2..ADR CONNECT B ASSY	AWZ6679
NSP	2..ADR CONNECT C ASSY	AWZ6680
NSP	2..ADR CONNECT D ASSY	AWZ6681
	2..ADR RESONANCE ASSY	AWZ6751

1..X DRIVE ASSY AWW1985

NSP	1..HD Y DRIVE ASSY	AWV1991
	2..SUB ADDRESS A ASSY	AWZ6692
	2..SUB ADDRESS B ASSY	AWZ6693
	2..SENSOR ASSY	AWZ6696
	2..Y DRIVE ASSY	AWZ6749

1..DIGITAL VIDEO ASSY AWW1971

NSP	1..HD FUKUGO ASSY	AWV1952
	2..LED ASSY	AWZ6655
	2..FRONT KEY ASSY	AWZ6656
	2..FRONT KEY CONN ASSY	AWZ6657
	2..IR (P) ASSY	AWZ6658
	2..MR INTERFACE ASSY	AWZ6699

NSP	1..HD AUDIO ASSY	AWV1935
	2..AUDIO AMP ASSY	AWZ6687
	2..SP TERMINAL ASSY	AWZ6688

 1..SW Power Supply Module AXY1059

Mark No. Description Part No.

SCAN (B) ASSY [AWZ6725]

SEMICONDUCTORS

IC6001-IC6006	SN755864APZP
D6007	KU10N16

CAPACITORS

C6001,C6002,C6011,C6012	ACG1088
C6021,C6022,C6031,C6032	ACG1088
C6041,C6042,C6051,C6052	ACG1088
(0.1uF/250V)	
C6004,C6020,C6029,C6033,C6049	CCSRCH151J50

C6058,C6060,C6062-C6066	CCSRCH151J50
C6005,C6009,C6013,C6015	CCSRCH181J50
C6026,C6027,C6038,C6040,C6044	CCSRCH181J50
C6048,C6054,C6059	CCSRCH181J50
C6007,C6008,C6014,C6019,C6025	CCSRCH331J50

C6028,C6035,C6039,C6046,C6047	CCSRCH331J50
C6056,C6057	CCSRCH331J50
C6003,C6006,C6017,C6018	CCSRCH390J50
C6023,C6024,C6034,C6037,C6043	CCSRCH390J50
C6045,C6053,C6055	CCSRCH390J50

C6010,C6016,C6030,C6036,C6050	CKSRYB105K6R3
C6061	CKSRYB105K6R3

RESISTORS

R6007,R6012,R6021,R6028,R6032	RAB4C221J
R6040	RAB4C221J
Other Resistors	RS1/16S###J

OTHERS

CN6001 15P CONNECTOR	AKP1218
K6001,K6012,K6018,K6025,K6031	AKX9002
K6038,K6044 TEST PIN	AKX9002

SCAN (A) ASSY [AWZ6724]

SEMICONDUCTORS

IC6201-IC6206	SN755864APZP
D6207	KU10N16

CAPACITORS

C6201,C6202,C6212,C6213	ACG1088
C6222,C6223,C6232,C6233	ACG1088
C6242,C6243,C6252,C6253	ACG1088
(0.1uF/250V)	
C6203,C6205,C6220,C6231,C6235	CCSRCH151J50

C6251,C6259,C6262-C6266	CCSRCH151J50
-------------------------	--------------

Mark No.	Description	Part No.
C6206,C6210,C6215,C6219,C6227		CCSRCH181J50
C6229,C6236,C6240,C6244,C6246		CCSRCH181J50
C6255,C6260		CCSRCH181J50
C6208,C6209,C6217,C6218,C6226		CCSRCH331J50
C6230,C6238,C6239,C6245,C6250		CCSRCH331J50
C6257,C6258		CCSRCH331J50
C6204,C6207,C6214,C6216		CCSRCH390J50
C6224,C6225,C6234,C6237		CCSRCH390J50
C6248,C6249,C6254,C6256		CCSRCH390J50
C6211,C6221,C6228,C6241,C6247		CKSRYB105K6R3
C6261		CKSRYB105K6R3

RESISTORS

R6207,R6209,R6222,R6228,R6232	RAB4C221J
R6239	RAB4C221J
Other Resistors	RS1/16S###J

OTHERS

CN6201 15P CONNECTOR	AKP1218
K6202,K6212,K6219,K6225,K6231	AKX9002
K6239,K6244 TEST PIN	AKX9002

X CONNECTOR (A) ASSY [AWZ6726]

RESISTORS

All Resistors	RS1/16S###J
---------------	-------------

X CONNECTOR (B) ASSY [AWZ6727]

RESISTORS

All Resistors	RS1/16S###J
---------------	-------------

BRIDGE A ASSY [AWZ6728]

SEMICONDUCTORS

D6421	D1FL20U(S)
-------	------------

CAPACITORS

C6421 (0.1uF/100V)	ACG1098
--------------------	---------

OTHERS

CN6421 PH CONNECTOR	B4B-PH-SM3
---------------------	------------

BRIDGE B ASSY [AWZ6729]

SEMICONDUCTORS

D6431	D1FL20U(S)
-------	------------

CAPACITORS

C6431 (0.1uF/100V)	ACG1098
--------------------	---------

OTHERS

CN6431 PH CONNECTOR	B4B-PH-SM3
---------------------	------------

BRIDGE C ASSY [AWZ6730]

SEMICONDUCTORS

D6441	D1FL20U(S)
-------	------------

CAPACITORS

C6441 (0.1uF/100V)	ACG1098
--------------------	---------

OTHERS

CN6441 PH CONNECTOR	B4B-PH-SM3
---------------------	------------

Mark No.	Description	Part No.
----------	-------------	----------

BRIDGE D ASSY [AWZ6731]

SEMICONDUCTORS

D6451	D1FL20U(S)
-------	------------

CAPACITORS

C6451 (0.1uF/100V)	ACG1098
--------------------	---------

OTHERS

CN6451	B4B-PH-SM3
--------	------------

ADR CONNECT A ASSY [AWZ6678]

SEMICONDUCTORS

IC6501	TC74VHC541FT
Q6502	2SC2712
Q6503	2SK209
D6501	DA227

COILS AND FILTERS

L6501,L6502 (22uH/0.11A)	ATH1081
--------------------------	---------

CAPACITORS

C6504,C6513-C6520	ACG1105
C6528 (330pF/100V)	ACG1105
C6531,C6533,C6534 (47uF/6.3V)	ACH1341
C6536-C6538	CCSRCH121J50
C6507-C6510,C6522-C6525,C6532	CKSRYF104Z16

C6535	CKSRYF104Z16
-------	--------------

RESISTORS

R6519-R6522,R6526,R6528	RAB4C100J
R6530,R6531,R6534-R6537,R6541	RAB4C100J
R6543,R6545,R6547	RAB4C100J
R6516	RAB4C473J
Other Resistors	RS1/16S###J

OTHERS

CN6501 55P CONNECTOR	AKM1202
----------------------	---------

ADR CONNECT B ASSY [AWZ6679]

SEMICONDUCTORS

IC6601	TC74VHC541FT
Q6602	2SC2712
Q6603	2SK209
D6601	DA227

COILS AND FILTERS

L6601,L6602 (22uH/0.11A)	ATH1081
--------------------------	---------

CAPACITORS

C6604,C6613-C6620	ACG1105
C6628 (330pF/100V)	ACG1105
C6631,C6633,C6634 (47uF/6.3V)	ACH1341
C6636-C6638	CCSRCH121J50
C6607-C6610,C6622-C6625,C6632	CKSRYF104Z16

C6635	CKSRYF104Z16
-------	--------------

RESISTORS

R6619-R6622,R6626,R6628	RAB4C100J
R6630,R6631,R6634-R6637,R6641	RAB4C100J
R6643,R6645,R6647	RAB4C100J
R6616	RAB4C473J
Other Resistors	RS1/16S###J

Mark No. Description Part No.

OTHERS

CN6601 55P CONNECTOR AKM1202

ADR CONNECT C ASSY [AWZ6680]

SEMICONDUCTORS

IC6801 TC74VHC541FT
Q6802 2SC2712
Q6803 2SK209
D6801 DA227

COILS AND FILTERS

L6801,L6802 (22uH/0.11A) ATH1081

CAPACITORS

C6804,C6813-C6820 ACG1105
C6828 (330pF/100V) ACG1105
C6831,C6833,C6834 (47uF/6.3V) ACH1341
C6836-C6838 CCSRCH121J50
C6807-C6810,C6822-C6825,C6832 CKSRYF104Z16

C6835 CKSRYF104Z16

RESISTORS

R6819-R6822,R6826,R6828 RAB4C100J
R6830,R6831,R6834-R6837,R6841 RAB4C100J
R6843,R6845,R6847 RAB4C100J
R6816 RAB4C473J
Other Resistors RS1/16S###J

OTHERS

CN6801 55P CONNECTOR AKM1202

ADR CONNECT D ASSY [AWZ6681]

SEMICONDUCTORS

IC6901 TC74VHC541FT
Q6902 2SC2712
Q6903 2SK209
D6901 DA227

COILS AND FILTERS

L6901,L6902 (22uH/0.11A) ATH1081

CAPACITORS

C6904,C6913-C6920 ACG1105
C6928 (330pF/100V) ACG1105
C6931,C6933,C6934 (47uF/6.3V) ACH1341
C6936-C6938 CCSRCH121J50
C6907-C6910,C6922-C6925,C6932 CKSRYF104Z16

C6935 CKSRYF104Z16

RESISTORS

R6919-R6922,R6926,R6928 RAB4C100J
R6930,R6931,R6934-R6937,R6941 RAB4C100J
R6943,R6945,R6947 RAB4C100J
R6916 RAB4C473J
Other Resistors RS1/16S###J

OTHERS

CN6901 55P CONNECTOR AKM1202

ADR RESONANCE ASSY [AWZ6751]

SEMICONDUCTORS

IC6704 ICP-S1.0
IC6701-IC6703 TND301S

Mark No. Description Part No.

Q6704,Q6705,Q6712 2SB1132
Q6701-Q6703 2SD1664
Q6710,Q6711 2SK3483-Z

Q6706-Q6709 FX20ASJ-2
D6701,D6703,D6704,D6706 1SS355
D6709,D6710,D6717,D6718 D1FL20U(S)
D6711-D6714 SPX-62S
D6702,D6705,D6716 UDZ15B

COILS AND FILTERS

L6704 CHOKE COIL ATH1121

CAPACITORS

C6716 ACE1162
C6720,C6721 (0.01uF/100V) ACG1101
C6722 (0.0068F/100V) ACG1102
C6703-C6708 (56uF/80V) ACH1347
C6701,C6702,C6709 CEHV470M16

C6710,C6711,C6713 CKSRYF104Z16

RESISTORS

All Resistors RS1/16S###J

OTHERS

CN6701 23P CONNECTOR AKP1221
CN6702 PH CONNECTOR B4B-PH-SM3
CN6703 PH CONNECTOR B5B-PH-SM3

X DRIVE ASSY [AWV1985]

[X LOGIC BLOCK]

SEMICONDUCTORS

IC3003 PE1012A
IC3004 TC74ACT540FT
IC3001,IC3008 TC74ACT541FT

COILS AND FILTERS

L3001 LFEA100J

CAPACITORS

C3005 CEHAT470M16
C3001,C3003,C3004,C3006 CKSRYF104Z50

RESISTORS

R3009-R3012 RAB4C0R0J
R3001,R3003,R3026,R3029 RAB4C470J
R3002,R3005,R3030,R3033 RAB4C472J
Other Resistors RS1/16S###J

OTHERS

CN3001 30P CONNECTOR KF050HA30L

[X SUS BLOCK]

SEMICONDUCTORS

IC3102 HCPL-M611
IC3200,IC3201 STK795-470
IC3101 TC74ACT541FT
IC3103,IC3104,IC3106,IC3107 TND301S
IC3110,IC3113 TND301S

IC3109 UPC78L05T
Q3116,Q3119,Q3120 2SJ522
Q3101 2SK2503
Q3103-Q3106,Q3109-Q3114 FS16VS-9
Q3124-Q3127 FS16VS-9

Mark No.	Description	Part No.
Q3122,Q3128		FS7VS-14A
Q3102		HN1B04FU
D3119		1SS184
D3108,D3124,D3125,D3133		1SS355
D3126,D3131,D3200,D3203,D3205		D1FL40
D3208,D3212-D3215		D1FL40
D3101,D3102,D3117,D3202,D3207		EC11FS4
D3210,D3211		EC11FS4
D3216,D3217		RB751V-40
D3120,D3127-D3129,D3135,D3136		UDZ15B

COILS AND FILTERS

L3206,L3207	ATH1112
RADIAL LEAD INDUCTOR	
L3201,L3204 CHOKE COIL	ATH1113
L3202,L3205,L3210,L3211	ATH1118
CHOKE COIL	

L3101	LFEA100J
L3107,L3108	LFEA101J

CAPACITORS

C3205,C3206,C3212,C3213	ACE1160
C3225,C3226 (1.5uF)	ACE1160
C3139,C3143 (0.1uF/630V)	ACG1092
C3223,C3224 (100pF/630V)	ACG1104
C3132 (47uF/350V)	ACH1346

C3200-C3202,C3207-C3209	ACH1352
(330uF/280V)	
C3112	CEHAT101M16
C3102,C3107,C3115,C3204,C3211	CEHAT101M25
C3101	CEHAT221M25

C3104,C3106	CEHAT470M16
C3135	CEHAT470M25
C3154,C3163	CKSRYB332K50
C3137,C3138	CKSRYB473K25
C3103,C3105,C3108,C3109,C3111	CKSRYF104Z50

C3113,C3114,C3117,C3130,C3140	CKSRYF104Z50
-------------------------------	--------------

RESISTORS

R3183,R3184,R3187 (15ohm)	ACN1156
R3113,R3114,R3121,R3122,R3126	RAB4C100J
R3132,R3140,R3141	RAB4C100J
R3212,R3217,R3230,R3234,R3237	RS1/10S184J
R3240,R3242,R3245	RS1/10S184J

R3211,R3213,R3214,R3218	RS1/16S2000F
R3134,R3163	RS1/2S100J
R3103	RS1/2S102J
R3109	RS1/2S2R2J
R3102	RS1/2S561J

R3215,R3216	RS1MMF101J
R3228,R3229	RS1MMF122J
R3178,R3179	RS3LMF181J
VR3200,VR3204 (1kohm)	ACP1089
Other Resistors	RS1/16S###J

OTHERS

K3203,K3213 TEST PIN	AKX9002
KN3105-KN3114 GROUND PLATE	ANK-142
CN3101 13P PLUG	KM250MA13

[X DD CON BLOCK]

SEMICONDUCTORS

IC3712	AN1431M
--------	---------

Mark No.	Description	Part No.
IC3701		MIP161
IC3702-IC3704		TLP181(GR)
Q3701		2SC2712
Q3800		HN1A01FU
D3710,D3711		1SS355
D3705,D3706		D1FL20U(S)
D3702		EC8FS6
D3708,D3709,D3713		RD110P
D3703		UDZ18B
D3707		UDZS5.6B

COILS AND FILTERS

L3701 RADIAL LEAD INDUCTOR	ATH1110
T3701 VRN TRANSFORMER	ATK1153

CAPACITORS

C3701 (22uF/315V)	ACH1345
C3717 (47uF/350V)	ACH1346
C3704	CEHAT101M16
C3706,C3711,C3714	CEHAT101M25
C3712	CEHAT331M16

C3705	CKSQYF104Z50
C3703,C3707,C3708,C3710	CKSRYB104K16
C3715,C3716	CKSRYB104K16

RESISTORS

R3732	RS1/16S1001F
R3806	RS1/16S1802F
R3701-R3704,R3706-R3717	RS1/16S1803F
R3805	RS1/16S2702F
R3731	RS1/16S3900F

R3802	RS1/16S5601F
R3738,R3739	RS1/2S102J
R3800,R3801	RS1/2S823J
VR3701 (1kohm)	ACP1089
Other Resistors	RS1/16S###J

Y DRIVE ASSY [AWZ6749]

[Y DRIVE LOGIC BLOCK]

SEMICONDUCTORS

IC2006	PE1013B
IC2007	TC74ACT540FT
IC2001,IC2003-IC2005	TC74ACT541FT
IC2101	TLP181(GR)

COILS AND FILTERS

L2001	LFEA100J
-------	----------

CAPACITORS

C2101	CEHAT100M50
C2003	CEHAT470M16
C2001,C2004,C2005,C2007,C2008	CKSRYF104Z50
C2010,C2102,C2104,C2122	CKSRYF104Z50

RESISTORS

R2015-R2018	RAB4C0R0J
R2001,R2002,R2005,R2011	RAB4C470J
R2037,R2038	RAB4C470J
R2035,R2036,R2039,R2040	RAB4C472J
Other Resistors	RS1/16S###J

OTHERS

CN2001 50P CONNECTOR	AKM1201
----------------------	---------

Mark No.	Description	Part No.
[Y DRIVE SUS BLOCK]		
SEMICONDUCTORS		
A	IC2202,IC2208 IC2206,IC2214 IC2201 IC2203,IC2204,IC2210,IC2212 IC2213,IC2216,IC2217	HCPL-M611 STK795-470 TC74ACT541FT TND301S TND301S
	IC2205,IC2209 Q2203 Q2204,Q2205 Q2201 Q2215,Q2217-Q2221,Q2226,Q2227	UPC78L05T 2SJ281 2SJ522 2SK2503 FQB34N20
B	Q2232,Q2233 Q2210,Q2211 Q2209 D2225 D2202,D2204	FQB34N20 FS16VS-9 HN1B04FU 1SS184 1SS226
	D2211 D2201 D2203,D2205,D2214,D2216,D2223 D2226,D2227,D2243 D2209	1SS355 D1FL20U(S) D1FL40 D1FL40 DF20L60
C	D2208,D2210,D2212,D2215 D2221,D2222,D2228,D2239 D2224,D2229 D2206,D2207	EC11FS4 EC11FS4 RB751V-40 UDZ15B

COILS AND FILTERS

L2207 RADIAL LEAD INDUCTOR L2213,L2214 RADIAL LEAD INDUCTOR L2206,L2211 CHOKE COIL L2208,L2212,L2215,L2216	ATH1110 ATH1112 ATH1113 ATH1118
--	--

CHOKE COIL L2210 L2203,L2205 L2201	LFEA100J LFEA101J LFEA470J
---	----------------------------------

CAPACITORS

C2228,C2230,C2231,C2250-C2252 (1.5uF) C2209,C2210 (0.1uF/630V) C2233,C2248 (100pF/630V) C2211 (47uF/350V) C2216,C2217,C2219,C2234-C2236 (330uF/280V)	ACE1160 ACG1092 ACG1104 ACH1346 ACH1352 ACH1346
--	--

C2221,C2225 C2204,C2227,C2237,C2240,C2247 C2202 C2232 C2218,C2224,C2229	CEHAT101M16 CEHAT101M25 CEHAT221M25 CEHAT331M2A CEHAT470M16
---	---

C2212,C2214 C2264,C2270 C2201,C2203,C2205,C2208,C2213 C2220,C2222,C2223,C2238,C2239 C2241,C2242	CEHAT470M25 CKSRYB472K50 CKSRYF104Z50 CKSRYF104Z50 CKSRYF104Z50
---	---

RESISTORS

R2235,R2273,R2291,R2305,R2315 R2317,R2342 R2253,R2256,R2270,R2283,R2332 R2338,R2354,R2355 R2359-R2362	RAB4C100J RAB4C100J RS1/10S184J RS1/10S184J RS1/16S2000F
---	--

Mark No.	Description	Part No.
R2263,R2264 R2203 R2209 R2202 R2278,R2303		RS1/2S100J RS1/2S102J RS1/2S2R2J RS1/2S561J RS1MMF101J
R2233,R2234 R2274,R2275 R2298,R2299 R2276,R2281 VR2201,VR2205 (1kohm)		RS1MMF152J RS1MMF471J RS2MMF3R3J RS3LMFR82J ACP1089
Other Resistors		RS1/16S###J

OTHERS

K2206,K2218 TEST PIN KN2201-KN2210 GROUND PLATE CN2201 15P PLUG	AKX9002 ANK-142 KM250MA15
---	---------------------------------

[Y DRIVE SCAN BLOCK]

SEMICONDUCTORS

IC2501,IC2502,IC2505,IC2510 IC2514 IC2504,IC2506	HCPL-M611 HCPL-M611 TC74ACT540FT
--	--

COILS AND FILTERS

L2501-L2503	LFEA100J
-------------	----------

CAPACITORS

C2506,C2527 C2502 C2524,C2525 C2501,C2503,C2505,C2507,C2508 C2513,C2517	CEHAT220M2D CEHAT221M16 CEHAT470M16 CKSRYF104Z50 CKSRYF104Z50
---	---

RESISTORS

R2502,R2504 Other Resistors	RAB4C101J RS1/16S###J
--------------------------------	--------------------------

OTHERS

CN2501,CN2502 15P CONNECTOR	AKM1200
--------------------------------	---------

[Y DRIVE DD-CON BLOCK]

SEMICONDUCTORS

IC2715-IC2717 IC2709 IC2708,IC2710,IC2718 IC2711 IC2701	AN1431M HCNR201 M5223AFP MIP0223SC MIP161
---	---

IC2704 IC2702,IC2703,IC2705-IC2707 IC2712-IC2714 Q2701,Q2703 Q2704	MIP301 TLP181(GR) TLP181(GR) 2SC2712 HN1A01FU
--	---

D2712,D2717,D2718,D2732,D2734 D2736,D2737 D2704,D2706,D2707,D2715,D2726 D2728 D2711	1SS355 1SS355 D1FL20U(S) D1FL20U(S) D1FS4
---	---

D2702,D2714,D2727 D2725 D2733 D2724 D2713	EC11FS4 EC8FS6 RD91P U1ZB330 U1ZB36
---	---

Mark No.	Description	Part No.
D2740		UDZ12B
D2709,D2716		UDZ3.6B
D2729,D2731		UDZ33B
D2703,D2710		UDZ36B
D2720,D2730,D2739		UDZS5.6B

COILS AND FILTERS

L2701	RADIAL LEAD INDUCTOR	ATH1110
T2702	SMD TRANSFORMER	ATK1150
T2703	VH TRANSFORMER	ATK1151
T2701	VOFS TRANSFORMER	ATK1152

CAPACITORS

C2701,C2735 (22uF/315V)	ACH1345
C2706,C2725,C2737	CEHAT101M16
C2709,C2718,C2720,C2739,C2745	CEHAT101M25
C2708	CEHAT101M2A
C2740	CEHAT101M2C
C2704	CEHAT221M25
C2715	CEHAT331M16
C2746	CEHAT331M25
C2723,C2751	CEHAT470M16
C2712	CEHAT471M35
C2711	CKSRYB103K50
C2702,C2705,C2713,C2714,C2719	CKSRYB104K16
C2721,C2722,C2724,C2727,C2729	CKSRYB104K16
C2731,C2733,C2736,C2742,C2743	CKSRYB104K16
C2747-C2749	CKSRYB104K16
C2728,C2730	CKSRYB471K50
C2707,C2738	CKSRYF104Z50

RESISTORS

R2735,R2791	RS1/16S1000F
R2780	RS1/16S1103F
R2715,R2728,R2733	RS1/16S1201F
R2787	RS1/16S1302F
R2766	RS1/16S1501F
R2785	RS1/16S1503F
R2777,R2786	RS1/16S1802F
R2776	RS1/16S2702F
R2705,R2706,R2709,R2710,R2778	RS1/16S3002F
R2781	RS1/16S3002F
R2783	RS1/16S4701F
R2734,R2736	RS1/16S4702F
R2779	RS1/16S5102F
R2773	RS1/16S5601F
R2784	RS1/16S5602F
R2782	RS1/16S6801F
R2744-R2746,R2748-R2753	RS1/16S9102F
R2711,R2716,R2767,R2770	RS1/2S102J
R2788,R2792	RS1/2S561J
R2771,R2772	RS1/2S823J
R2712	RS3LMF272J
VR2702,VR2703 (1kohm)	ACP1089
VR2701 (2.2kohm)	ACP1090
Other Resistors	RS1/16S###J

SUB ADDRESS A ASSY [AWZ6692] SEMICONDUCTORS

IC8801,IC8802,IC8804	M5223AFP
IC8803	TC74VHC74FT

Mark No.	Description	Part No.
Q8802		2SA1163
Q8804,Q8805,Q8808		2SC2712
Q8806		2SK209
D8801-D8803,D8809		1SS355
D8806,D8807		DA227
D8808		UDZ27B
D8804		UDZS5.1B

COILS AND FILTERS

L8801 (100uH/0.45A)	ATH1074
L8802,L8803 (22uH/0.11A)	ATH1081

CAPACITORS

C8806	CCSRCH101J50
C8822	CEHV100M16
C8804	CEHV100M35
C8808	CEHV470M16
C8807	CEVNP2R2M35
C8802,C8805,C8809-C8817	CKSRYF104Z16
C8820,C8821	CKSRYF104Z16

RESISTORS

R8806,R8807,R8837,R8838,R8841	RS1/16S1002D
R8858	RS1/16S1202D
R8828,R8829,R8832,R8846,R8864	RS1/16S2202D
R8826,R8827,R8839,R8840	RS1/16S4701D
R8833	RS1/16S4702F
R8859	RS1/16S5602F
R8801,R8802	RS1/2S1R5J
R8803-R8805	RS1/2S2R2J
Other Resistors	RS1/16S###J

OTHERS

CN8803	23P CONNECTOR	AKM1205
CN8801	PH CONNECTOR	S3B-PH-SM3
CN8802	PH CONNECTOR	S8B-PH-SM3

SUB ADDRESS B ASSY [AWZ6693] SEMICONDUCTORS

IC8901,IC8902,IC8904	M5223AFP
IC8903	TC74VHC74FT
Q8902	2SA1163
Q8904,Q8905,Q8908	2SC2712
Q8906	2SK209
D8901-D8903,D8909	1SS355
D8906,D8907	DA227
D8908	UDZ27B
D8904	UDZS5.1B

COILS AND FILTERS

L8901 (100uH/0.45A)	ATH1074
L8902,L8903 (22uH/0.11A)	ATH1081

CAPACITORS

C8906	CCSRCH101J50
C8922	CEHV100M16
C8904	CEHV100M35
C8908	CEHV470M16
C8907	CEVNP2R2M35
C8902,C8905,C8909-C8917	CKSRYF104Z16
C8920,C8921	CKSRYF104Z16

RESISTORS

R8906,R8907,R8937,R8938,R8941	RS1/16S1002D
-------------------------------	--------------

Mark No.	Description	Part No.
R8958		RS1/16S1202D
R8928,R8929,R8932,R8946,R8964		RS1/16S2202D
R8926,R8927,R8939,R8940		RS1/16S4701D
R8933		RS1/16S4702F
R8959		RS1/16S5602F
R8901,R8902		RS1/2S1R5J
R8903-R8905		RS1/2S2R2J
Other Resistors		RS1/16S###J

OTHERS

CN8903	23P CONNECTOR	AKM1205
CN8901	PH CONNECTOR	S3B-PH-SM3
CN8902	PH CONNECTOR	S8B-PH-SM3

SENSOR ASSY [AWZ6696]

SEMICONDUCTORS

IC8351	LM50CIM3
IC8352	M5223AFP

CAPACITORS

C8356	CEV470M6R3
C8354	CKSRYB103K50
C8351,C8355	CKSRYF104Z16
C8352,C8353	CKSRYF105Z10

RESISTORS

R8354,R8358	RS1/16S1001F
Other Resistors	RS1/16S###J

DIGITAL VIDEO ASSY [AWV1971]

[INTERFACE BLOCK]

SEMICONDUCTORS

IC1001-IC1008	TC74VHC541FT
---------------	--------------

COILS AND FILTERS

F1001-F1006 EMI FILTER	ATF1194
------------------------	---------

CAPACITORS

C1001-C1008	CKSRYF104Z16
-------------	--------------

RESISTORS

R1044	RAB4C101J
R1001-R1007,R1036,R1063-R1069	RAB4C103J
R1008-R1017,R1019,R1020,R1027	RAB4C470J
R1032,R1034,R1035,R1037,R1038	RAB4C470J
R1040-R1043,R1048,R1049	RAB4C470J

R1051-R1054	RAB4C470J
Other Resistors	RS1/16S###J

OTHERS

CN1003,CN1004	AKM1201
50P CONNECTOR	
K1001 TEST PIN	AKX9002
CN1001 PH CONNECTOR	B12B-PH-SM3

[PANEL UCOM BLOCK]

SEMICONDUCTORS

IC1101	HD64F2328VF
IC1103	NC7SZ08P5
IC1102	PST9228N
Q1101,Q1103	DTC143EK
D1101	AEL1171

Mark No.	Description	Part No.
----------	-------------	----------

CAPACITORS

C1123,C1124	CCSRCH7R0D50
C1101	CEV101M4
C1102,C1109,C1110,C1112-C1116	CKSRYB102K50
C1129-C1132	CKSRYB102K50
C1117,C1121	CKSRYB103K50

C1120	CKSRYB472K50
C1103-C1108,C1111,C1118,C1119	CKSRYF104Z16
C1122,C1125-C1128	CKSRYF104Z16

RESISTORS

R1104,R1107,R1110,R1113,R1114	RAB4C472J
R1116,R1121,R1124,R1127,R1129	RAB4C472J
Other Resistors	RS1/16S###J

OTHERS

K1101-K1104,K1107,K1108	AKX9002
TEST PIN	
X1101	ASS1160
CERAMIC RESONATOR (25MHz)	

[MODULE UCOM BLOCK]

SEMICONDUCTORS

IC1204	24LC04B(I)SN
IC1208	PST9246N
IC1202	TC74VHC08FT
IC1201	TC74VHC21FT
IC1205	TC74VHC541FT

IC1203	TC74VHCT541AFT
IC1206	TC7W126FU
D1201,D1202	1SS355

CAPACITORS

C1213,C1243-C1245	CCSRCH470J50
C1235,C1236	CCSRCH7R0D50
C1225,C1232	CEV470M6R3
C1201-C1203,C1206-C1211	CKSRYB102K50
C1214-C1216,C1218,C1219	CKSRYB102K50

C1223,C1224,C1226,C1227,C1229	CKSRYB102K50
C1237,C1238,C1241,C1242,C1247	CKSRYB102K50
C1234	CKSRYB103K50
C1233	CKSRYB472K50
C1204,C1205,C1212,C1217	CKSRYF104Z16

C1221,C1222,C1228,C1230,C1231	CKSRYF104Z16
C1239,C1240,C1246,C1248-C1250	CKSRYF104Z16

RESISTORS

R1209,R1214,R1245	RAB4C101J
R1242	RAB4C103J
R1207	RAB4C123J
R1213,R1216	RAB4C473J
Other Resistors	RS1/16S###J

OTHERS

X1201	ASS1159
CERAMIC RESONATOR (16MHz)	
CN1203 PH CONNECTOR	B3B-PH-SM3
CN1201,CN1202 8P PLUG	CKS3130

[DIGITAL BLOCK]

SEMICONDUCTORS

IC1802	FS781BZB
IC1704	NC7SZ08P5
IC1301,IC1401	PD6358A

Mark No.	Description	Part No.
IC1703		PE5064A
IC1501,IC1502,IC1601,IC1602		TC74VCX541FT
IC1702,IC1801		TC74VHC541FT
IC1803		TC74VHC74FT
IC1701		TC74VHCT541AFT
D1301-D1305		1SS226

COILS AND FILTERS

F1301-F1304,F1501-F1505	ATF1194
F1601-F1605 EMI FILTER	ATF1194

CAPACITORS

C1807	CCSRCH271J50
C1802	CEV100M16
C1306,C1322,C1406,C1422,C1711	CEV101M4
C1806	CEV101M4
C1504-C1508,C1604-C1608,C1712	CKSRYB102K50
C1303-C1305,C1307-C1321	CKSRYF104Z16
C1323-C1336,C1403-C1405	CKSRYF104Z16
C1407-C1421,C1423-C1436,C1501	CKSRYF104Z16
C1503,C1601,C1603,C1701-C1710	CKSRYF104Z16
C1713,C1803-C1805	CKSRYF104Z16

RESISTORS

R1502,R1517,R1606,R1622	RAB4C101J
R1307,R1310-R1315,R1317,R1318	RAB4C220J
R1321,R1322,R1326-R1344,R1407	RAB4C220J
R1410-R1415,R1417,R1418	RAB4C220J
R1421,R1422,R1426-R1444	RAB4C220J
R1501,R1514,R1607,R1627,R1701	RAB4C470J
R1703-R1709,R1712-R1717	RAB4C470J
R1551,R1552	RS1/2S680J
Other Resistors	RS1/16S###J

OTHERS

CN1701 50P CONNECTOR	AKM1201
CN1501,CN1502,CN1504,CN1505	AKM1202
CN1601,CN1602,CN1604,CN1605	AKM1202
55P CONNECTOR	
K1301,K1302,K1308,K1311-K1314	AKX9002
K1316,K1321,K1324,K1326-K1331	AKX9002
K1333,K1501,K1502,K1601,K1602	AKX9002
K1728,K1729 TEST PIN	AKX9002
X1801	ASS1146
CRYSTAL RESONATOR (50.000MHz)	
CN1503,CN1603 PH CONNECTOR	B8B-PH-SM3
CN1301 8P PLUG	CKS3130
CN1702 30P CONNECTOR	KF050HA30L

[D-D CONVERTER BLOCK]

SEMICONDUCTORS

Q1902,Q1905,Q1907	2SC2712
Q1903	DTC143EK
Q1901,Q1904,Q1906	HN1C01FU
D1903-D1906,D1911,D1912	1SS355
D1908	HZU2.2B
D1902,D1909	UDZ3.6B
D1907	UDZS5.1B
D1901	UDZS6.8B

CAPACITORS

C1904,C1906,C1912	CEV220M16
C1901-C1903,C1905,C1907-C1911	CKSRYF104Z16

Mark No.	Description	Part No.
----------	-------------	----------

RESISTORS

R1935,R1936	RS1/2S680J
Other Resistors	RS1/16S###J

OTHERS

K1901-K1906 TEST PIN	AKX9002
1901 DC-DC CONVERTER	AXY1060
CN1901 PH CONNECTOR	B13B-PH-SM3

MR INTERFACE ASSY [AWZ6699]

[INTERFACE BLOCK]

SEMICONDUCTORS

IC4011	CXA1875AM
IC4007,IC4010	M5223AFP
IC4005	M62320FP
IC4001	PQ05DZ51
IC4002-IC4004	PQ20VZ1U
IC4013	PST9228N
IC4008,IC4009	TC74HC00AF
IC4012	TC74HC4066AF
IC4006	TC74VHCT541AFT
Q4003,Q4004,Q4010	2SA1162
Q4007,Q4009,Q4013,Q4017,Q4018	2SC2712
Q4012,Q4016,Q4019-Q4022	DTC124EK
Q4014	HN1A01FU
Q4008	HN1B04FU
Q4001,Q4002,Q4005,Q4006	HN1C01FU
Q4011,Q4015	RN2902
D4007,D4008	1SS184
D4002-D4006	1SS355

SWITCHES AND RELAYS

S4001,S4004	ASH1010
-------------	---------

CAPACITORS

C4023,C4036,C4037	CCSRCH102J50
C4025,C4032	CCSRCH220J50
C4029,C4030,C4053,C4054	CCSRCH471J50
C4001,C4004,C4005,C4008,C4010	CEAT101M10
C4012,C4013,C4016,C4041,C4042	CEAT101M10
C4034,C4038,C4050,C4056	CKSRYB105K6R3
C4043	CKSRYB474K10
C4027,C4028,C4033,C4051	CKSRYF103Z50
C4002,C4003,C4006,C4007	CKSRYF104Z16
C4014,C4015,C4017-C4019,C4024	CKSRYF104Z16
C4026,C4031,C4035,C4039,C4040	CKSRYF104Z16
C4044-C4047,C4049,C4052,C4055	CKSRYF104Z16

RESISTORS

R4019,R4035,R4054,R4066	RAB4C101J
R4056	RAB4C471J
R4007,R4014,R4015,R4117	RS1/16S1001F
R4106	RS1/16S1002F
R4107	RS1/16S1502F
R4098	RS1/16S2201F
R4078	RS1/16S2202F
R4074,R4094	RS1/16S3301F
R4075	RS1/16S4701F
R4057	RS1/16S5601F
R4124	RS1/16S5602F
R4004,R4005,R4115,R4116	RS1/16S8200F

Mark No.	Description	Part No.
R4093		RS1/16S8201F
R4006		RS2MMF2R2J
Other Resistors		RS1/16S###J

OTHERS

CN4004,CN4005	AKM1180
50P CONNECTOR	
CN4003 24P DVI SOCKET	AKP1216
CN4002 SOCKET (20P)	AKP1227
CN4006,CN4009	B3B-PH-SM3
3P PH CONNECTOR	
CN4007 7P PH CONNECTOR	B7B-PH-SM3
CN4008 8P PLUG	CKS3130

[TMD5 RECEIVER BLOCK]

SEMICONDUCTORS

IC4201	24LC01B
IC4203	24LC128(I)SN
IC4202	24LC32A
IC4205	PST9228N
IC4204	SII861CM208
Q4209,Q4212	2SA1162
Q4205,Q4206,Q4213	DTA124EK
Q4203,Q4204,Q4207,Q4208	DTC124EK
Q4210,Q4211,Q4214	DTC124EK
Q4201,Q4202	HN1C01FU

D4201	1SS184
D4203,D4204	1SS226
D4205-D4209	1SS355
D4202	RD6.8MB

COILS AND FILTERS

F4201,F4203-F4205 EMI FILTER	ATF1194
------------------------------	---------

CAPACITORS

C4208,C4210,C4215,C4222,C4230	CCSRCH331J50
C4255,C4257	CCSRCH331J50
C4262	CCSRCH471J50
C4206,C4207,C4212,C4214,C4217	CCSRCH820J50
C4219,C4220,C4224,C4227,C4229	CCSRCH820J50
C4231-C4233,C4236,C4241,C4244	CCSRCH820J50
C4248,C4253,C4254,C4258	CCSRCH820J50
C4239,C4242,C4246,C4250	CEAT101M10
C4202,C4237,C4238	CEAT470M10
C4264	CKSRYB103K50

C4265	CKSRYB105K6R3
C4260	CKSRYB472K50
C4263	CKSRYB474K10
C4201,C4203-C4205,C4209,C4211	CKSRYF104Z16
C4213,C4216,C4218,C4221,C4225	CKSRYF104Z16

C4234,C4235,C4240,C4243,C4245	CKSRYF104Z16
C4247,C4251,C4252,C4256,C4259	CKSRYF104Z16
C4261	CKSRYF104Z16
C4223,C4226,C4228,C4249	CKSRYF105Z10
C4266-C4270	CKSRYF105Z10

RESISTORS

R4213-R4217,R4245,R4247	RAB4C181J
R4253-R4255	RAB4C181J
R4241	RAB4C680J
R4250	RS1/16S5100D
Other Resistors	RS1/16S###J

Mark No.	Description	Part No.
OTHERS		
K4201-K4207	TEST PIN	AKX9002
X4201		ASS1163
CRYSTAL RESONATOR (16.000MHz)		

[AUDIO BLOCK]

SEMICONDUCTORS

Q4403	2SA1162
Q4401,Q4402	2SC2712
D4401-D4404	1SS355

CAPACITORS

C4408,C4417	CEANP100M50
C4403	CEAT101M10
C4407	CEAT101M25
C4402	CEAT220M50
C4425,C4426	CEAT470M25
C4410	CKSRYF104Z16

RESISTORS

All Resistors	RS1/16S###J
---------------	-------------

OTHERS

CN4403 7P PH CONNECTOR	B7B-PH-SM3
CN4404 8P PH CONNECTOR	B8B-PH-SM3

LED ASSY [AWZ6655]

SEMICONDUCTORS

D4751	AEL1170
-------	---------

OTHERS

CN4751 3P PH CONNECTOR	S3B-PH-SM3
------------------------	------------

FRONT KEY ASSY [AWZ6656]

SWITCHES AND RELAYS

S4801-S4806	ASG1088
-------------	---------

CAPACITORS

C4801-C4803	CKSRYF104Z16
-------------	--------------

RESISTORS

Other Resistors	RS1/16S###J
-----------------	-------------

OTHERS

CN4801 6P FFC CONNECTOR	AKM1208
-------------------------	---------

FRONT KEY CONN ASSY [AWZ6657]

SEMICONDUCTORS

D4851,D4852	1SS226
-------------	--------

OTHERS

CN4851 6P FFC CONNECTOR	AKM1208
CN4852 4P PH CONNECTOR	B4B-PH-SM3

IR (P) ASSY [AWZ6658]

SEMICONDUCTORS

Q4901	2SC2712
D4901	1SS355

CAPACITORS

C4901	CEV470M6R3
C4902	CKSRYB103K50

Mark No.	Description	Part No.
C4903		CKSRYB472K50
C4904		CKSRYF104Z16

RESISTORS

All Resistors	RS1/16S###J
---------------	-------------

OTHERS

4901 REMOTE RECEIVER UNIT	GP1UM26RK
---------------------------	-----------

AUDIO AMP ASSY [AWZ6687]

SEMICONDUCTORS

IC5202	CXA2021S
IC5002	LA4628
IC5201	NJM2193L
IC5001	PQ12RD1B
Q5002,Q5005	2SA1048

Q5009,Q5012,Q5013	2SC2458
-------------------	---------

COILS AND FILTERS

L5001 FERRITE CORE	ATX1037
--------------------	---------

CAPACITORS

C5203,C5227	CCCCH221J50
C5213,C5226	CEHANP220M25
C5232,C5233,C5235	CEHAT100M50
C5015,C5029,C5033,C5201,C5206	CEHAT101M25
C5242	CEHAT221M25

C5032,C5034	CEHAT2R2M50
C5044,C5050,C5051	CEHAT330M25
C5005	CEHAT331M16
C5238	CEHAT470M16
C5002	CEHAT471M16

C5013	CEHAT472M25
C5208,C5211,C5212,C5218	CEHAT4R7M50
C5222,C5223,C5234	CEHAT4R7M50
C5045	CEHATR47M50
C5014,C5204,C5217,C5220,C5228	CFTLA103J50

C5237	CFTLA103J50
C5035,C5046,C5053,C5056,C5216	CFTLA104J50
C5221,C5239	CFTLA104J50
C5214,C5230	CFTLA224J50
C5225	CFTLA333J50

C5219,C5236	CFTLA473J50
C5003,C5006,C5016,C5042,C5207	CKCYB103K50
C5210	CKCYB103K50
C5043,C5052,C5205,C5229	CQMA122J50
C5224	CQMA222J50

C5215,C5231	CQMA392J50
-------------	------------

RESISTORS

R5053,R5054,R5075,R5076	RD1/2MMF2R2J
R5001	RD1/2MMF3R9J
Other Resistors	RD1/4PU###J

OTHERS

J5003 6P HOUSING WIRE	ADX2729
J5002 8P HOUSING WIRE	ADX2731
5006	AEC1818
5001,5002,5004,5005 SCREW	VBB30P100FNI

Mark No.	Description	Part No.
SP TERMINAL ASSY [AWZ6688]		

COILS AND FILTERS

L5301,L5352 LINE FILTER	ATF1206
-------------------------	---------

CAPACITORS

C5306,C5307	CCCCH101J50
C5301,C5305,C5351,C5355	CCCCH221J50
C5302,C5352	CKCYB332K50
C5303,C5353	CKCYF473Z50

RESISTORS

R5301,R5302,R5351,R5352	RD1/2MMF100J
-------------------------	--------------

OTHERS

CN5301 4P SPEAKER TERMINAL	AKE1058
----------------------------	---------

SW Power Supply Module [AXY1059]

SW Power Supply Module has no service part

1 2 3 4

6. ADJUSTMENT

6.1 SERVICE FACTORY MODE

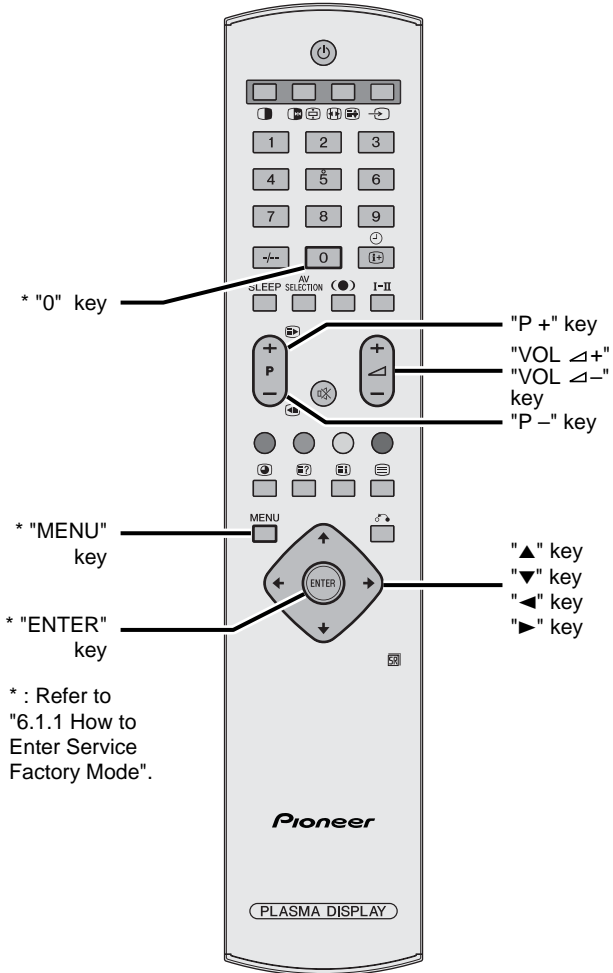
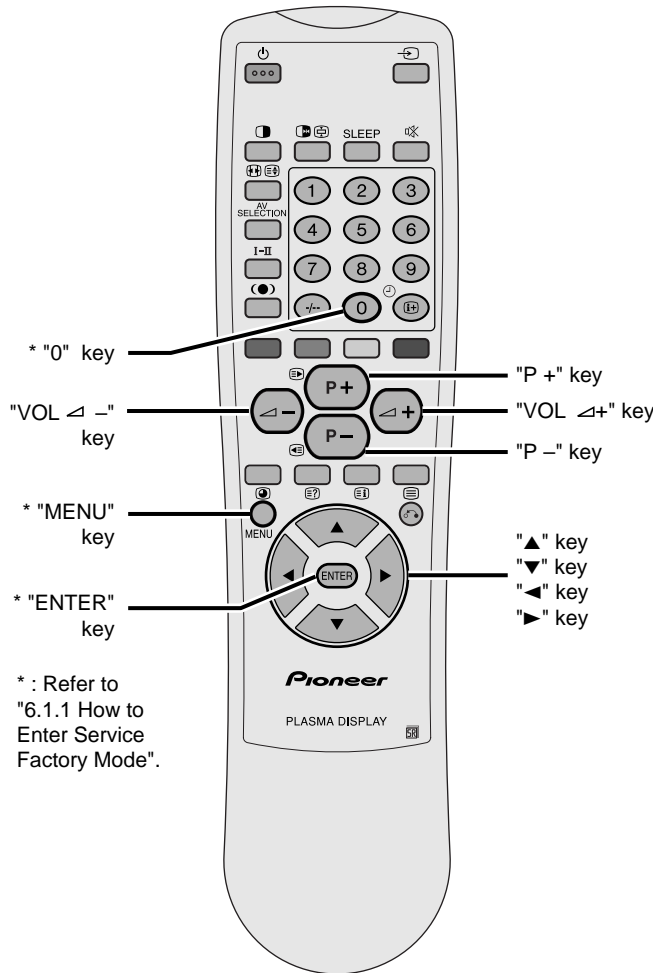


Service factory mode uses an OSD function of the Media Receiver (PDP-R03E, PDP-R03U or PDP-R03G). Perform the adjustment and setting when the Media Receiver is connected with this unit. Service Factory mode cannot be used if the Media Receiver is not connected with the Plasma Display.

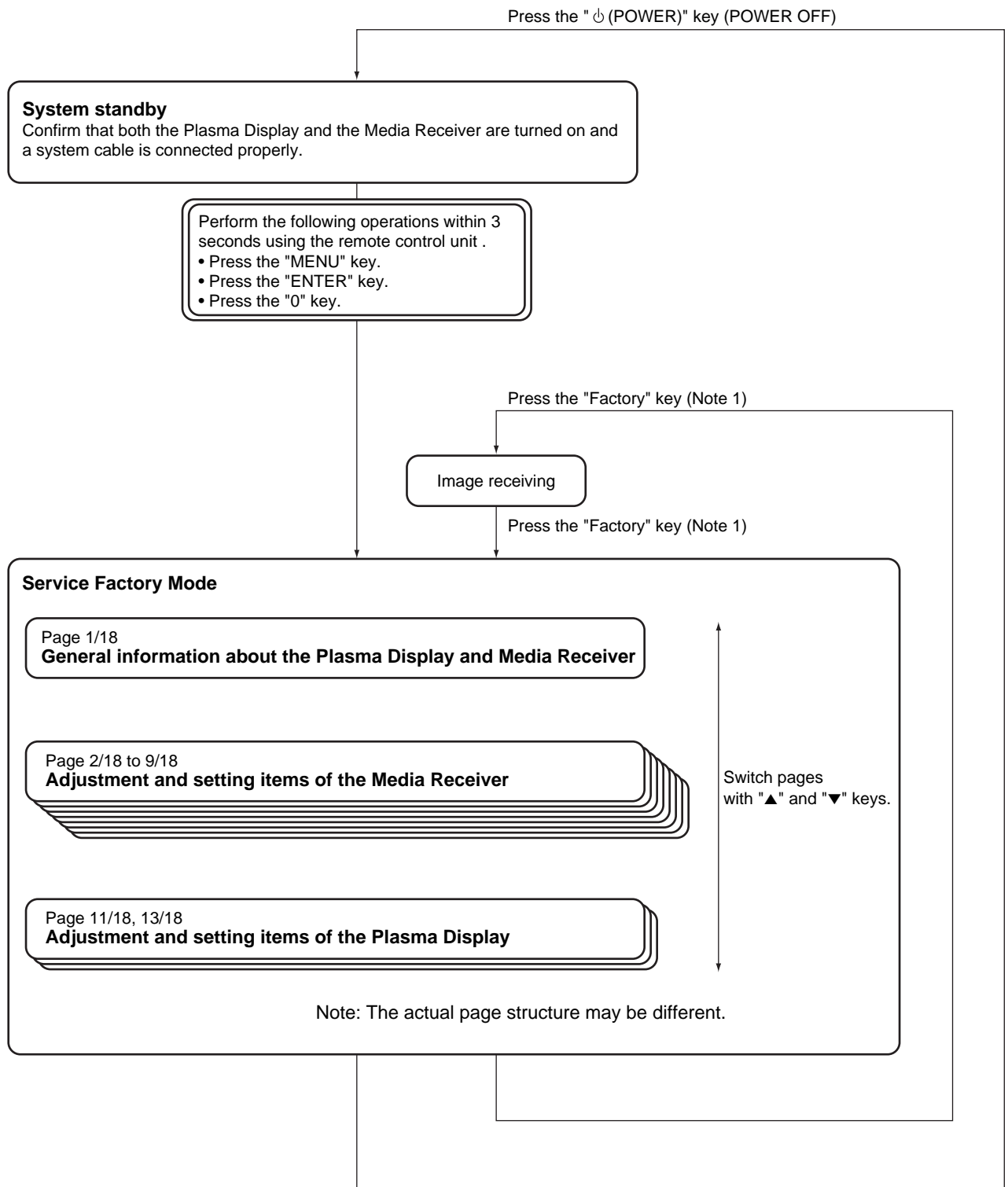
Remote Control Unit Operation in The Service Factory Mode

Operate the service factory mode with the remote control unit (AXD1463, AXD1460 or AXD1471) supplied with the Media Receiver. Please perform the adjustment using the following keys.

Keys on the Remote Control Unit	Functions
P + key	Each press of the key moves the adjustment-item-selection cursor up by one line.
P - key	Each press of the key moves the adjustment-item-selection cursor down by one line.
VOL ▲ + key	Each press of the key increases the adjustment value by one.
VOL ▲ - key	Each press of the key decreases the adjustment value by one.
▲ key	Each press of the key moves one page backward (previous page).
▼ key	Each press of the key moves one page forward (next page).
◀ key	Each press of the key decreases the adjustment value by 10.
▶ key	Each press of the key increases the adjustment value by 10.



6.1.1 How to Enter the Service Factory Mode



Note 1: If the remote control unit for adjustment with the factory (AA5F) code is used.

6.1.2 General Information about the Plasma Display and Media Receiver

● Display example of the first page

No.	1/18	INPUT1 No SIG
1	CENTER Version	MR MAIN E 2001/09/25 H
2	OSD Version	MR OSD 2001/09/10 A
3	CVIC Version	W2001/09/12 09:00 X2001/09/12 09:07 V2001/09/12 09:10
4	TTXP Version	TTX PRG 061
5	MONITOR Version	F6 91 10
6	PANEL Version	-00
7	FLASH Version	-05
8	MONITOR Model	01
9	Model Select Main	0
10	Model Select AV	4
11	Model Select MONITOR	0
12	Sensore Temp	+28
13	Center Acutime	16 H 41 M
14	RESET	OFF
15	Monitor Acutime	47 H 42 M
16	RESET	OFF
17	Pulse Acutime	164
18	RESET	OFF

No.	1/18	Item	Explanation
1	CENTER Version	Main software version information of the media receiver	
2	OSD version	OSD version information of the media receiver	
3	CVIC Version	IP/resize IC control software version information of the media receiver	
4	TTXP Version	Text microcomputer software version information of the media receiver	
5	MONITOR Version	Module microcomputer software version information of the PDP	
6	PANEL Version	Panel microcomputer version information of the PDP	Reference
7	FLASH Version	Panel flash ROM version information of the PDP	
8	MONITOR model	PDP model information	01: PIONEER 50 inches, 02: PIONEER 43 inches, 11: SHARP 50 inches, 12: SHARP 43 inches
9	Model Select Main	Media receiver model information	
10	Model Select AV	Media receiver model information	
11	Model Select MONITOR	PDP destination information	0: All SHARP destinations, Japanese and North America destinations of PIONEER, 3: European and general destinations of PIONEER
12	Sensor Temp	Temperature information of panel temperature sensor on the PDP	This is internal temperature information. This is not an environmental temperature.
13	Center Acutime	Media receiver accumulation operating time	
14	RESET	Media receiver accumulation operating time reset	Turn the display on by pressing the VOL+ key, then press the ENTER key. The accumulated time will be reset to zero.
15	Monitor Acutime	PDP accumulation operating time	
16	RESET	PDP accumulation operating time reset	Turn the display on by pressing the VOL+ key, then press the ENTER key. The accumulated time will be reset to zero.
17	Pulse Acutime	PDP accumulation pulse number	Real accumulation pulse number becomes "indicated value *10,000,000 pulse".
18	RESET	PDP accumulation pulse number reset	Turn the display on by pressing the VOL+ key, then press the ENTER key. The accumulated number will be reset to zero.

Note: The actual page structure may be different.

● Display example of the eleventh page

No.	11/18	INPUT1 No	SIG	HDCP:ON
1	TROUBLE RECORD1	0000	NONE	
2		350		H 57 M
3		+25		
4				
5	TROUBLE RECORD2	1600	XDRIVE PD	
6		300		H 15 M
7		+45		
8				
9	TROUBLE RECORD3	0200	ADRK PD	
10		250		H 19 M
11		+65		
12				
13	TROUBLE RECORD4	1500	YDCDC PD	
14		200		H 25 M
15				
16				
17				
18				
19				

No.	11/18	Item	Explanation
1	TROUBLE RECORD1	The latest PD record in the PD history	Disregard the first four-digit number. Following this number, the information on PD is displayed.
2		Accumulated operating time of the panel when Trouble Record 1 occurred	H : hour , M : minute
3		Temperature at the internal thermal sensor when Trouble Record 1 occurred	Maximum temperature to be displayed : +94°C
4			
5	TROUBLE RECORD2	The second latest PD record in the PD history	Disregard the first four-digit number. Following this number, the information on PD is displayed.
6		Accumulated operating time of the panel when Trouble Record 2 occurred	H : hour , M : minute
7		Temperature at the internal thermal sensor when Trouble Record 2 occurred	Maximum temperature to be displayed : +94°C
8			
9	TROUBLE RECORD3	The third latest PD record in the PD history	Disregard the first four-digit number. Following this number, the information on PD is displayed.
10		Accumulated operating time of the panel when Trouble Record 3 occurred	H : hour , M : minute
11		Temperature at the internal thermal sensor when Trouble Record 3 occurred	Maximum temperature to be displayed : +94°C
12			
13	TROUBLE RECORD4	The fourth latest PD record in the PD history	Disregard the first four-digit number. Following this number, the information on PD is displayed.
14		Accumulated operating time of the panel when Trouble Record 4 occurred	H : hour , M : minute
15		Temperature at the internal thermal sensor when Trouble Record 4 occurred	Maximum temperature to be displayed : +94°C

NOTE : The failure point of a PD, corresponding to the number of blinks of the Red LED, is indicated in the PD records as follows:

Number of blinks	Item	Past record display
1	Y-DRIVE	Y-DRIVE PD
2	Y-DC/DC CONVERTER	Y-DC/DC PD
3	X-DC/DC CONVERTER	X-DC/DC PD
4	X-DRIVE	X-DRIVE PD
5	Power supply	0000 NONE *1
6	Address junction	ADR PD
7	Address resonance	ADRK PD
8	DIGITAL-DC/DC CONVERTER	DCC PD

Note: The actual page structure may be different.

NOTE1:

A PD record representing 5 blinks of the Red LED (a PD of the power-supply section) must display "0000 NONE", accumulated time and temperature together. If only "0000 NONE" is displayed, but the accumulated time and temperature are zero, it means there was no PD.
If "0000 NONE" is displayed and the internal thermal sensor temperature is 78°C or more, it represents a record of a shutdown (SD) prompted by the abnormal temperature (indicated by 4 blinks of the Green LED), and not a record of a PD of the power-supply section.

6.1.3 Adjustment and Setting Item of the Plasma Display

● Display example of the eleventh page

No.	12/18	INPUT1 No	SIG
1	MNTR V50 WB	02	
2	MNTR V60 WB	01	
3	MNTR PC WB	01	
4	MNTR R HIGH1	255	
5	MNTR G HIGH1	255	
6	MNTR B HIGH1	254	
7	MNTR R LOW1	510	
8	MNTR G LOW1	509	
9	MNTR B LOW1	512	
10	MNTR R HIGH2	255	
11	MNTR G HIGH2	255	
12	MNTR B HIGH2	254	
13	MNTR R LOW2	510	
14	MNTR G LOW2	511	
15	MNTR B LOW2	512	
16			
17			
18			

No.	12/18	Item	Adjustable Range	Factory Setting	Storage Place
1	MNTR V50 WB	PDP_W/B table selection at VIDEO 50Hz	1 or 2	2	PDP
2	MNTR V60 WB	PDP_W/B table selection at VIDEO 60Hz	1 or 2	1	PDP
3	MNTR PC WB	PDP_W/B table selection at PC	1 or 2	1	PDP
4	MNTR R HIGH1	RED_GAIN of PDP_W/B table 1	0 to 255	Factory adjustment value	PDP
5	MNTR G HIGH1	GREEN_GAIN of PDP_W/B table 1	0 to 255	Factory adjustment value	PDP
6	MNTR B HIGH1	BLUE_GAIN of PDP_W/B table 1	0 to 255	Factory adjustment value	PDP
7	MNTR R LOW1	RED_OFS of PDP_W/B table 1	0 to 999	Factory adjustment value	PDP
8	MNTR G LOW1	GREEN_OFS of PDP_W/B table 1	0 to 999	Factory adjustment value	PDP
9	MNTR B LOW1	BLUE_OFS of PDP_W/B table 1	0 to 999	Factory adjustment value	PDP
10	MNTR R HIGH2	RED_GAIN of PDP_W/B table 2	0 to 255	Factory adjustment value	PDP
11	MNTR G HIGH2	GREEN_GAIN of PDP_W/B table 2	0 to 255	Factory adjustment value	PDP
12	MNTR B HIGH2	BLUE_GAIN of PDP_W/B table 2	0 to 255	Factory adjustment value	PDP
13	MNTR R LOW2	RED_OFS of PDP_W/B table 2	0 to 999	Factory adjustment value	PDP
14	MNTR G LOW2	GREEN_OFS of PDP_W/B table 2	0 to 999	Factory adjustment value	PDP
15	MNTR B LOW2	BLUE_OFS of PDP_W/B table 2	0 to 999	Factory adjustment value	PDP

Note on PDP W/B (No. 4 to 15) adjustment:

During adjustment, the value being adjusted is valid regardless of the actual input signal. For example, if the settings for the table selections (No. 1 and 2) remain at the factory preset settings, even if a PAL signal is being input, while [MNTR R HIGH1] is adjusted, the value in W/B table 1 is adjusted even if a PAL signal is being displayed.

After adjustment, if the PDP is restarted in the normal mode, the value in W/B table 2 will be used during PAL signal input, and the value in W/B table 1 will be used during NTSC signal input.

Note: The actual page structure may be different.

● Display example of the thirteenth page (1/2)

No.	13/18	INPUT1 No SIG
1	ABL VIDEO60 PC	118
2	ABL VIDEO50	122
3	VOFS ADJ	131
4	VSUS ADJ	128
5	XSUSB ADJ	08
6	XSUSG ADJ	08
7	YSUSB ADJ	08
8	YSUSG ADJ	08
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		

No.	13/18	Item	Adjustable Range	Factory Setting	Storage Place
1	ABL VIDEO60 PC	Electric power setting at the PC, VIDEO 60Hz	0 to 255	Factory adjustment value	PDP
2	ABL VIDEO50	Electric power setting at VIDEO 50Hz	0 to 255	Factory adjustment value	PDP
3	VOFS ADJ	VOFS voltage setting	0 to 255	Factory adjustment value	PDP
4	VSUS ADJ	VSUS voltage setting	0 to 255	Factory adjustment value	PDP
5	XSUSB ADJ	SUS_B timing setting of X drive	0 to 15	Factory adjustment value	PDP
6	XSUSG ADJ	SUS_G timing setting of X drive	0 to 15	Factory adjustment value	PDP
7	YSUSB ADJ	SUS_B timing setting of Y drive	0 to 15	Factory adjustment value	PDP
8	YSUSG ADJ	SUS_G timing setting of Y drive	0 to 15	Factory adjustment value	PDP

If you fail to correctly adjust the above items 1 to 8, the unit may be damaged. Be very careful when making adjustments.

Note on the electric-power-setting adjustment (No. 1 and 2):

During adjustment, the value being adjusted is valid regardless of the actual input signal. For example, even if a PAL signal is being input, while [ABL VIDEO60 PC] is adjusted, the value for the [ABL VIDEO60 PC] is adjusted even if a PAL signal is being displayed. After the adjustment, if the PDP is restarted in the normal mode, the unit will operate on [ABL VIDEO50] during PAL signal input, and on [ABL VIDEO60 PC] using your adjusted values during NTSC signal input.

Note: The actual page structure may be different.

● Display example of the thirteenth page (2/2)

No.	13/18	INPUT1 No SIG
1	VIDEO DRIVE MODE	00
2	PC DRIVE MODE	03
3	NEGATIVE MODE	OFF
4	BRIGHT ENHANCE	OFF
5	MASK V FREQ	50
6	PATTERN MASK	OFF
7	FULL MASK	OFF
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		

No.	13/18	Item	Adjustable Range	Factory Setting	Storage Place
1	VIDEO DRIVE MODE	Drive mode selection at VIDEO	0 to 5	0	PDP
2	PC DRIVE MODE	Drive mode selection at PC	0 to 5	3	PDP
3	NEGATIVE MODE	Negative positive inversion mode	OFF/ON	OFF	PDP
4	BRIGHT ENHANCE	Bright enhance	OFF/ON	OFF	None
5	MASK V FREQ	Refresh rate at mask signal generation	50/60/70	—	None
6	PATTERN MASK	Pattern mask signal generation	OFF/	OFF	PDP
7	FULL MASK	Full mask signal generation	OFF/	OFF	PDP

Notes when using the mask signals (test signals generated inside the PDP):

- Either the pattern-mask signal or the full-mask signal can be used. Therefore, when the pattern-mask signal is to be used, set the full-mask signal to OFF, and when the full-mask signal is to be used, set the pattern-mask signal to OFF.

- As the pattern-mask and full-mask signals are both test signals generated from inside the PDP, while either of the signals is being generated, OSD signals or external video input signals cannot be checked.

Use the buttons on the main unit or the keys on the remote control unit for releasing a mask setting, changing each setting, adjustment, or checking external input signals. For 2 seconds after any operation is performed using the buttons on the main unit or the keys on the remote control unit, generation of a mask signal is stopped. During this period, it is possible to change any setting, make any adjustment, or check an external input signal.

Note: The actual page structure may be different.

6.2 ADJUSTMENT REQUIRED WHEN THE SET IS REPAIRED OR REPLACED

■ SW POWER SUPPLY Module

- **When repaired**

No adjustment required.

■ DIGITAL VIDEO Assy

- **When repaired**

No adjustment required.

- **When replaced**

- Remove IC1204 (24LC04(1) SN-TBB) from the former PC Board and install it to the new PC Board.

■ MR INTERFACE Assy

- Set the slide SW referring to the table on page 22.

■ Y DRIVE Assy

- **When repaired**

Note: If the Pulse Module fails, it is not possible to repair the Y DRIVE Assy by replacing only the Pulse Module. Replace the entire Y DRIVE Assy.

1. VOFS/VH/IC5V voltage adjustment

- **When replaced**

1. Panel white balance adjustment

■ X DRIVE Assy

- **When repaired**

Note: If the Pulse Module fails, it is not possible to repair the X DRIVE Assy by replacing only the Pulse Module. Replace the entire X DRIVE Assy.

1. VRN voltage adjustment

- **When replaced**

1. Panel white balance adjustment

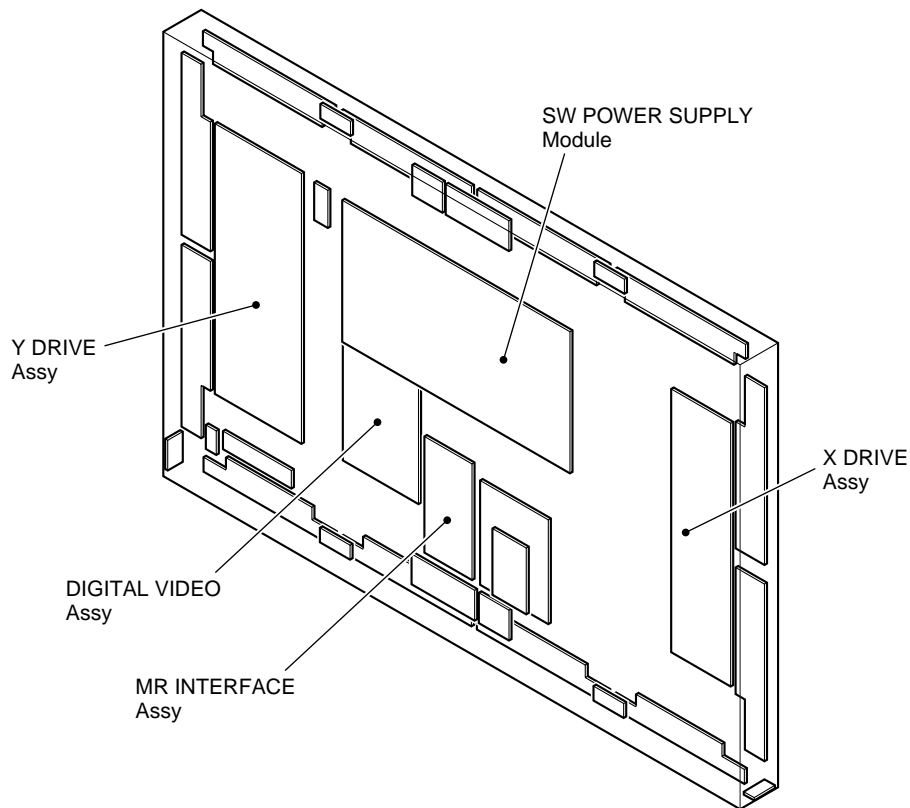


Fig. 1 Configuration of the PC Board (rear side view)

6.3 ADJUSTMENT



VOFS/VH/IC5V Voltage Adjustment

Input Signal	Adjusting Point	Adjusting Method																																																																																																																																								
White 100%	VR2701 (VOFS) (Y DRIVE Assy)	<p>VOFS (Offset voltage) adjustment</p> <p>Method 1</p> <ol style="list-style-type: none">1. Make a note of the adjustment value of VOFS ADJ in factory mode.2. Set the VOFS ADJ adjustment value to center (128).3. Turn the VR2701 so that the voltage between K2710 (VOFS) and K2703 (SUS GND) becomes 45V.4. Return the VOFS ADJ adjustment value to that which you wrote down in Step 1. <p>Method 2</p> <ol style="list-style-type: none">1. Read the adjustment value of VOFS ADJ in the factory mode.2. Turn the VR2701 so that the voltage between K2710 (VOFS) and K2703 (SUS GND) becomes the corresponding value indicated in the table below (tolerance: ± 5): <table><tr><th>Input Command</th><th>DAC Output</th><th>Setting Voltage</th><th>Input Command</th><th>DAC Output</th><th>Setting Voltage</th></tr><tr><td>VOF000</td><td>0.4</td><td>25</td><td>VOF134</td><td>2.599212598</td><td>45.94488</td></tr><tr><td>VOF006</td><td>0.4984375</td><td>25.9375</td><td>VOF141</td><td>2.71496063</td><td>47.04724</td></tr><tr><td>VOF013</td><td>0.61328125</td><td>27.03125</td><td>VOF147</td><td>2.814173228</td><td>47.99213</td></tr><tr><td>VOF019</td><td>0.71171875</td><td>27.96875</td><td>VOF153</td><td>2.913385827</td><td>48.93701</td></tr><tr><td>VOF026</td><td>0.8265625</td><td>29.0625</td><td>VOF160</td><td>3.029133858</td><td>50.03937</td></tr><tr><td>VOF032</td><td>0.925</td><td>30</td><td>VOF166</td><td>3.128346457</td><td>50.98425</td></tr><tr><td>VOF038</td><td>1.0234375</td><td>30.9375</td><td>VOF172</td><td>3.227559055</td><td>51.92913</td></tr><tr><td>VOF045</td><td>1.13828125</td><td>32.03125</td><td>VOF179</td><td>3.343307087</td><td>53.0315</td></tr><tr><td>VOF051</td><td>1.23671875</td><td>32.96875</td><td>VOF185</td><td>3.442519685</td><td>53.97638</td></tr><tr><td>VOF058</td><td>1.3515625</td><td>34.0625</td><td>VOF191</td><td>3.541732283</td><td>54.92126</td></tr><tr><td>VOF064</td><td>1.45</td><td>35</td><td>VOF198</td><td>3.657480315</td><td>56.02362</td></tr><tr><td>VOF070</td><td>1.5484375</td><td>35.9375</td><td>VOF204</td><td>3.756692913</td><td>56.9685</td></tr><tr><td>VOF077</td><td>1.66328125</td><td>37.03125</td><td>VOF211</td><td>3.872440945</td><td>58.07087</td></tr><tr><td>VOF083</td><td>1.76171875</td><td>37.96875</td><td>VOF217</td><td>3.971653543</td><td>59.01575</td></tr><tr><td>VOF090</td><td>1.8765625</td><td>39.0625</td><td>VOF223</td><td>4.070866142</td><td>59.96063</td></tr><tr><td>VOF096</td><td>1.975</td><td>40</td><td>VOF230</td><td>4.186614173</td><td>61.06299</td></tr><tr><td>VOF102</td><td>2.0734375</td><td>40.9375</td><td>VOF236</td><td>4.285826772</td><td>62.00787</td></tr><tr><td>VOF109</td><td>2.18828125</td><td>42.03125</td><td>VOF242</td><td>4.38503937</td><td>62.95276</td></tr><tr><td>VOF115</td><td>2.28671875</td><td>42.96875</td><td>VOF249</td><td>4.500787402</td><td>64.05512</td></tr><tr><td>VOF122</td><td>2.4015625</td><td>44.0625</td><td>VOF255</td><td>4.6</td><td>65</td></tr><tr><td>VOF128</td><td>2.5</td><td>45</td><td></td><td></td><td></td></tr></table> <p>Signs of improper adjustment If the VOFS Voltage adjustment is not performed properly, blinking luminance points like dots appear. If the voltage deviates greatly from the right adjustment point, the panel will turn white when lit.</p>	Input Command	DAC Output	Setting Voltage	Input Command	DAC Output	Setting Voltage	VOF000	0.4	25	VOF134	2.599212598	45.94488	VOF006	0.4984375	25.9375	VOF141	2.71496063	47.04724	VOF013	0.61328125	27.03125	VOF147	2.814173228	47.99213	VOF019	0.71171875	27.96875	VOF153	2.913385827	48.93701	VOF026	0.8265625	29.0625	VOF160	3.029133858	50.03937	VOF032	0.925	30	VOF166	3.128346457	50.98425	VOF038	1.0234375	30.9375	VOF172	3.227559055	51.92913	VOF045	1.13828125	32.03125	VOF179	3.343307087	53.0315	VOF051	1.23671875	32.96875	VOF185	3.442519685	53.97638	VOF058	1.3515625	34.0625	VOF191	3.541732283	54.92126	VOF064	1.45	35	VOF198	3.657480315	56.02362	VOF070	1.5484375	35.9375	VOF204	3.756692913	56.9685	VOF077	1.66328125	37.03125	VOF211	3.872440945	58.07087	VOF083	1.76171875	37.96875	VOF217	3.971653543	59.01575	VOF090	1.8765625	39.0625	VOF223	4.070866142	59.96063	VOF096	1.975	40	VOF230	4.186614173	61.06299	VOF102	2.0734375	40.9375	VOF236	4.285826772	62.00787	VOF109	2.18828125	42.03125	VOF242	4.38503937	62.95276	VOF115	2.28671875	42.96875	VOF249	4.500787402	64.05512	VOF122	2.4015625	44.0625	VOF255	4.6	65	VOF128	2.5	45				VR2703 (VH) (Y DRIVE Assy)	<p>VH (voltage for the scan IC) Adjustment</p> <p>Adjust so that the voltage between K2716 (VH) and K2720 (PSUS) becomes 130V ± 0.5V. PSUS (=GNDH) is a floating GND and its electric potential is different from that of chassis GND. Be sure not to short-circuit PSUS (=GNDH) and another GND, because that may damage the unit.</p> <p>Signs of improper adjustment If the VH adjustment is not performed properly, blinking luminance points like dots appear. If the voltage is deviated greatly from the right adjustment point, the panel will turn white when lit.</p>	VR2702 (IC5V) (Y DRIVE Assy)	<p>IC5V Adjustment</p> <p>Adjust so that the voltage between K2707 (IC5V) and K2720 (PSUS) becomes 5.0V ± 0.1V. PSUS (=GNDH) is a floating GND and its electric potential is different from that of chassis GND. Be sure not to short-circuit PSUS (=GNDH) and another GND, because that may damage the unit.</p>
	Input Command	DAC Output	Setting Voltage	Input Command	DAC Output	Setting Voltage																																																																																																																																				
	VOF000	0.4	25	VOF134	2.599212598	45.94488																																																																																																																																				
VOF006	0.4984375	25.9375	VOF141	2.71496063	47.04724																																																																																																																																					
VOF013	0.61328125	27.03125	VOF147	2.814173228	47.99213																																																																																																																																					
VOF019	0.71171875	27.96875	VOF153	2.913385827	48.93701																																																																																																																																					
VOF026	0.8265625	29.0625	VOF160	3.029133858	50.03937																																																																																																																																					
VOF032	0.925	30	VOF166	3.128346457	50.98425																																																																																																																																					
VOF038	1.0234375	30.9375	VOF172	3.227559055	51.92913																																																																																																																																					
VOF045	1.13828125	32.03125	VOF179	3.343307087	53.0315																																																																																																																																					
VOF051	1.23671875	32.96875	VOF185	3.442519685	53.97638																																																																																																																																					
VOF058	1.3515625	34.0625	VOF191	3.541732283	54.92126																																																																																																																																					
VOF064	1.45	35	VOF198	3.657480315	56.02362																																																																																																																																					
VOF070	1.5484375	35.9375	VOF204	3.756692913	56.9685																																																																																																																																					
VOF077	1.66328125	37.03125	VOF211	3.872440945	58.07087																																																																																																																																					
VOF083	1.76171875	37.96875	VOF217	3.971653543	59.01575																																																																																																																																					
VOF090	1.8765625	39.0625	VOF223	4.070866142	59.96063																																																																																																																																					
VOF096	1.975	40	VOF230	4.186614173	61.06299																																																																																																																																					
VOF102	2.0734375	40.9375	VOF236	4.285826772	62.00787																																																																																																																																					
VOF109	2.18828125	42.03125	VOF242	4.38503937	62.95276																																																																																																																																					
VOF115	2.28671875	42.96875	VOF249	4.500787402	64.05512																																																																																																																																					
VOF122	2.4015625	44.0625	VOF255	4.6	65																																																																																																																																					
VOF128	2.5	45																																																																																																																																								
Note : Be sure to measure between specified test points.																																																																																																																																										

■ Sustain Pulse Waveform Adjustment

Input Signal	Adjusting Point	Adjusting Method
White 100%	REF_DIG mode in Factory mode XSUSB ADJ YSUSB ADJ	X-SUS-B, Y-SUS-B Adjustment Set to the indicated value with the remote control unit.

■ VRN Voltage Adjustment

Input Signal	Adjusting Point	Adjusting Method
White 100%	VR3701 (VRN) (X DRIVE Assy)	VRN (minus reset voltage adjustment) Adjust so that the voltage between K3707 (VRN) and K3702 (SUS-GND) becomes $-280V \pm 1.0V$.

■ Panel White Balance Adjustment

Input Signal	Adjusting Point	Adjusting Method									
		<p>Adjust the OFFSET-DIGITAL parameters (from PANEL R-HIGH to PANEL B-LOW) in Factory mode.</p> <p>For adjustment, use the mask (MASK04) signal of Factory mode for display.</p> <p>Reference : Adjustment values when using the Minolta color-difference meter (A-100)</p> <table border="1"> <thead> <tr> <th></th><th>MASK Left Side</th><th>MASK Right Side</th></tr> </thead> <tbody> <tr> <td>x</td><td>293</td><td>292</td></tr> <tr> <td>y</td><td>308</td><td>296</td></tr> </tbody> </table>		MASK Left Side	MASK Right Side	x	293	292	y	308	296
	MASK Left Side	MASK Right Side									
x	293	292									
y	308	296									

Note: If you perform various adjustments with the RS-232C commands, be sure to execute a "DM0" command (releasing the pulse number limit) first, and after completion of the adjustment, be sure to execute a "DM3" command (pulse number limit: 64%, factory preset value).

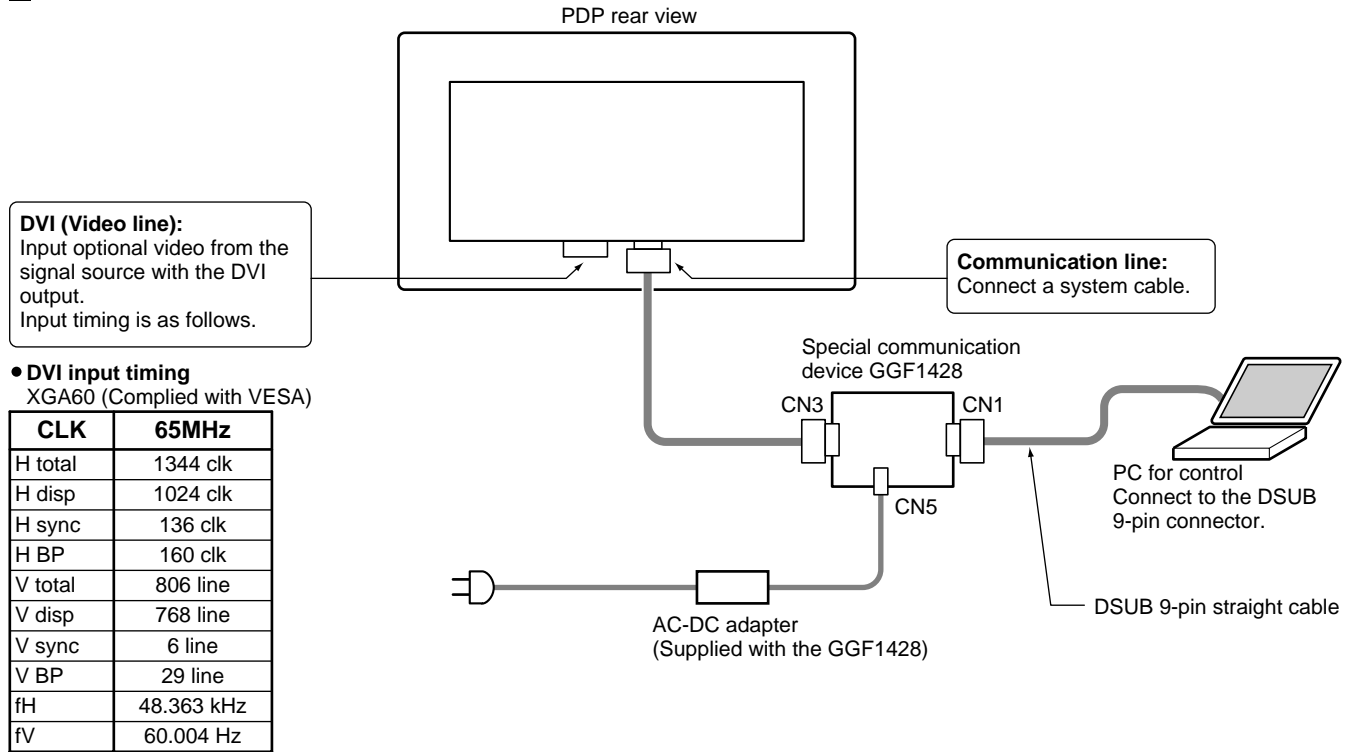
6.4 COMMANDS

6.4.1 RS-232C Commands

The panel control items for the PDP-433PU, PE and PG system can be controlled with the RS-232C commands by connecting a PC through a special communication device GGF1428 when the Media Receiver is not connected with the PDP.

Note: The DSUB (9-pin) connector at the rear of the Media Receiver cannot be used.

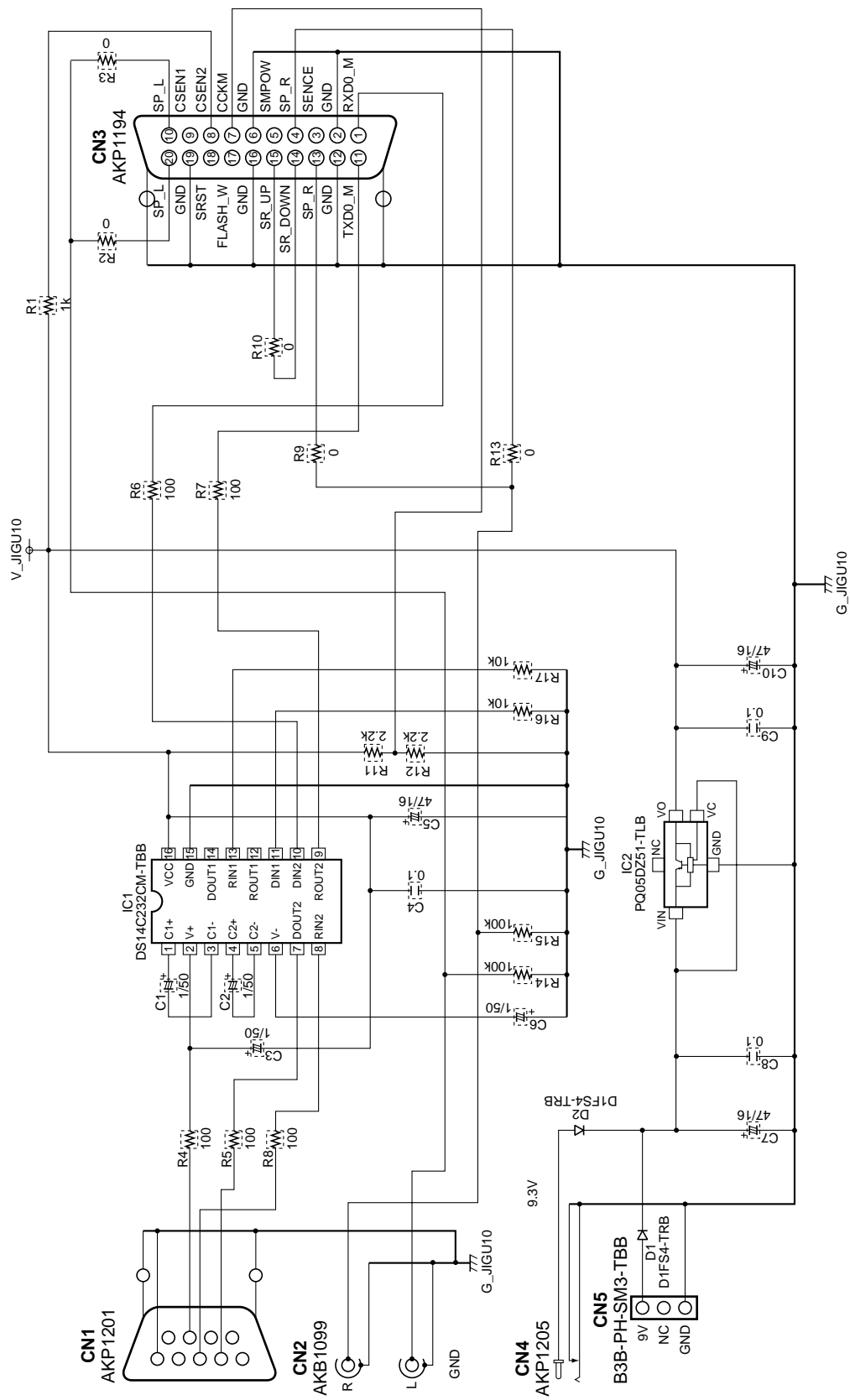
■ Connection



■ Communication baud rate

Fixed to 38400 bps.

Schematic Diagram of the special communication device



RS-232C Commands when the Media Receiver is not connected with the PDP

Command	Name	Function	Direct Validity	UP/DOWN Validity	Lower Limit	Upper Limit
AB0	ABL REFERENCE MODE	Setting the ABL to reference value				
AB1	ABL OFFSET MODE 1	Setting the ABL to offset value 1				
AB2	ABL OFFSET MODE 2	Setting the ABL to offset value 2				
AB3	ABL OFFSET MODE 3	Setting the ABL to offset value 3				
ABL	ABL ADJUST	Adjusting the upper limit of the power	O	O	000	255
AMN	AUDIO MUTE OFF	Mute off request of speaker volume				
AMY	AUDIO MUTE ON	Mute request of speaker volume				
DRF	DRIVE OFF	Drive OFF				
DRN	DRIVE ON	Drive ON				
DW0	DOWN 0	Lowering the adjustment value by 10				
DWF	DOWN FULL	Minimizing the adjustment value				
DWn	DOWN n	Lowering the adjustment value by n				
EWN	EEPROM WRITE NO	Completing the plug & play EEPROM writing mode				
EWY	EEPROM WRITE YES	Starting the plug & play EEPROM writing mode				
F50	FREE RUN 50VIDEO	Displaying the mask screen with 50Hz (video) sequence				
F60	FREE RUN 60VIDEO	Displaying the mask screen with 60Hz (video) sequence				
F61	FREE RUN 60PC	Displaying the mask screen with 60Hz (PC) sequence				
F70	FREE RUN 70PC	Displaying the mask screen with 70Hz (PC) sequence				
GAJ *	GET ADJUST	Acquiring the various adjustment value of the display				
GPW *	GET PANEL W/B	Acquiring the W/B adjustment value of the panel				
GS1 *	GET STATUS 1	Acquiring the version information				
HMS	HOURLY METER SET	Setting hour meter to optional time				
M00	MASK 00	Mask mode OFF				
M01	MASK 01	Pattern 1 (Lamps)				
M02	MASK 02	Pattern 2 (Color bars)				
M03	MASK 03	Pattern 3 (Slanting lines)				
M04	MASK 04	Pattern 4 (W/B measurement)				
M05	MASK 05	Pattern 5 (W/B adjustment)				
M06	MASK 06	Pattern 6 (W/B peak measurement)				
M07	MASK 07	Pattern 7 (Peak measurement)				
M08	MASK 08	Pattern 8 (Reservation)				
M09	MASK 09	Pattern 9 (SCAN IC protection test)				
M10	MASK 10	Pattern 10 (SCAN IC protection test)				
M11	MASK 11	Pattern 11 (reservation)				
M12	MASK 12	Pattern 12 (reservation)				
M13	MASK 13	Pattern 13 (reservation)				
M14	MASK 14	Pattern 14 (reservation)				
M51	MASK 51	Full mask (white)				
M52	MASK 52	Full mask (cyan 274)				
M53	MASK 53	Full mask (magenta 1023)				
M54	MASK 54	Full mask (flesh color)				
M55	MASK 55	Full mask (cyan 1023)				
M56	MASK 56	Full mask (light purple)				
M57	MASK 57	Full mask (sky blue)				
M58	MASK 58	Full mask (red)				
M59	MASK 59	Full mask (green)				
M60	MASK 60	Full mask (blue)				
M61	MASK 61	Full mask (black)				
M62	MASK 62	Full mask (red 779)				
M63	MASK 63	Full mask (cyan 218)				
M64	MASK 64	Full mask (cyan 444)				
M65	MASK 65	Full mask (flesh color 43)				
M66	MASK 66	Full mask (red 620)				
M67	MASK 67	Full mask (magenta 98)				
M68	MASK 68	Full mask (sky blue 1_43)				

* See "6. 4. 2 GET Commands".

RS-232C Commands when the Media Receiver is not connected with the PDP

Comman	Name	Function	Direct Validity	UP/DOWN Validity	Lower Limit	Upper Limit
A	M69	MASK 69	Full mask (sky blue 2_43)			
	M70	MASK 70	Full mask (light purple 43)			
	M71	MASK 71	Full mask (yellow)			
	M72	MASK 72	Full mask (blue 916)			
	M73	MASK 73	Full mask (reservation)			
	M74	MASK 74	Full mask (reservation)			
	MMN	MIRROR MODE NO	Mirror mode OFF (normal display)			
B	MMX	MIRROR MODE X	Right and left reversing display			
	MMY	MIRROR MODE Y	Top and bottom reversing display			
	MMZ	MIRROR MODE XY	Top and bottom, right and left reversing display			
	MTN	PANEL MUTE NO	Release panel mute			
	MTY	PANEL MUTE YES	Panel mute			
	NMN	NEGATIVE MODE NO	Negative-positive inversion mode OFF			
	NMY	NEGATIVE MODE YES	Negative-positive inversion mode ON			
C	PBH	PANEL BLUE HIGH	BLUE HIGH LIGHT adjustment	O	O	000 255
	PBL	PANEL BLUE LOW	BLUE LOW LIGHT adjustment	O	O	000 999
	PGH	PANEL GREEN HIGH	GREEN HIGH LIGHT adjustment	O	O	000 255
	PGL	PANEL GREEN LOW	GREEN LOW LIGHT adjustment	O	O	000 999
	PHN	PANEL HIGHT-LIGHT NO	Releasing the W/B highlight maximum mode of the panel			
	PHY	PANEL HIGHT-LIGHT YES	Setting the W/B highlight of the panel to maximum			
	PLN	BRIGHT ENHANCE NO	Center brightness correction OFF			
D	PLY	BRIGHT ENHANCE YES	Center brightness correction ON			
	PMS	PULSE METER SET	Optional setting of the pulse meter			
	POF	POWER OFF	Standby request			
	PON	POWER ON	Power ON request			
	PRH	PANEL RED HIGH	RED HIGH LIGHT adjustment	O	O	000 255
	PRL	PANEL RED LOW	RED LOW LIGHT adjustment	O	O	000 999
	PCN	PC MODE NO	At the 60Hz input: VIDEO sequence selection			
E	PCY	PC MODE YES	At the 60Hz input: PC sequence selection			
	PT0	PANEL COLOR TEMP 0	Set each temperature mode to 0 (REF)			
	PT1	PANEL COLOR TEMP 1	Set each temperature mode to 1 (OFS1)			
	PT2	PANEL COLOR TEMP 2	Set each temperature mode to 2 (OFS2)			
	UP0	UP 0	Increasing the adjustment value by 10			
	UPF	UP FULL	Maximizing the adjustment value			
	UPn	UP n	Increasing the adjustment value by n			
F	VOF	VOFFSET ADJUST	Vofs adjustment	O	O	000 255
	VOL	VOLUME	Volume	O	O	000 060
	VSU	VSUS ADJUST	Vsus adjustment	O	O	000 255
	XSB	XSUS B	X-SUS-B pulse adjustment	O	O	000 015
	XSG	XSUS G	X-SUS-G pulse adjustment	O	O	000 015
	YSB	YSUS B	Y-SUS-B pulse adjustment	O	O	000 015
	YSG	YSUS G	Y-SUS-G pulse adjustment	O	O	000 015

6.4.2 GET Commands

● Command Description

Command	Function
GAJ	Outputting data for electronic-control-adjustment values and drive-system-adjustment values
GPW	Outputting data relating to the white-balance adjustment for the panel
GS1	Outputting data such as version information, and data from the hour meter and pulse meter

GAJ: Outputting data for electronic-control-adjustment values and drive-system-adjustment values

- Output the data according to the order and size of the table below.

Order	Data Contents	Size	Remarks
1	Setting mode of electric power upper limit value	3 byte	AB* (*: 0 to 3)
2	Electric power upper limit value (ABL)	(Reference data)	3 byte
3		(Offset data)	3 byte (Note 1)
4	Vsus adjustment value	(Reference data)	3 byte
5	Vofs adjustment value	(Reference data)	3 byte
6	V-SUS-B adjustment value	(Reference data)	3 byte
7	V-SUS-G adjustment value	(Reference data)	3 byte
8	Y-SUS-B adjustment value	(Reference data)	3 byte
9	Y-SUS-G adjustment value	(Reference data)	3 byte

(Note 1) : If data are output when Reference mode is selected, the same data as the reference data are output as the offset data.

(Note 2) : A checksum of 2 bytes is added at the end, but this can be ignored.

GPW: Outputting data relating to the white-balance adjustment for the panel

- Output the data according to the order and size of the table below.

Order	Data Contents	Size	Remarks
1	Panel color temperature mode	3 byte	PT* (*: 0 to 3)
2	Gain of W/B adjustment value Red	(Reference data)	3 byte
3		(Offset data)	3 byte (Note 1)
4	Gain of W/B adjustment value Green	(Reference data)	3 byte
5		(Offset data)	3 byte (Note 1)
6	Gain of W/B adjustment value Blue	(Reference data)	3 byte
7		(Offset data)	3 byte (Note 1)
8	Offset of W/B adjustment value Red	(Reference data)	3 byte
9		(Offset data)	3 byte (Note 1)
10	Offset of W/B adjustment value Green	(Reference data)	3 byte
11		(Offset data)	3 byte (Note 1)
12	Offset of W/B adjustment value Blue	(Reference data)	3 byte
13		(Offset data)	3 byte (Note 1)

(Note 1) : If data are output when Reference mode is selected, the same data as the reference data are output as the offset data.

(Note 2) : A checksum of 2 bytes is added at the end, but this can be ignored.

GS1: Outputting data such as version information, and data from the hour meter and pulse meter

- Output the data according to the order and size of the table below.

Order	Data Contents	Size	Remarks
1	Display information	3 byte	See below
2	Module microcomputer model number	4 byte	5691 or F691
3	Module microcomputer version	3 byte	
4	Panel microcomputer version	3 byte	
5	Panel /FLASH ROM version	3 byte	
6	Hour meter (hour)	5 byte	Unit: H (hour)
7	Pulse meter	7 byte	Unit: 0.01G (10,000,000)
8	Main microcomputer model number	4 byte	5692 or F692
9	Main microcomputer version	3 byte	
10	Wide microcomputer version	3 byte	
11	Wide /FLASH ROM version	3 byte	

Note: A checksum of 2 bytes is added at the end, but this can be ignored.

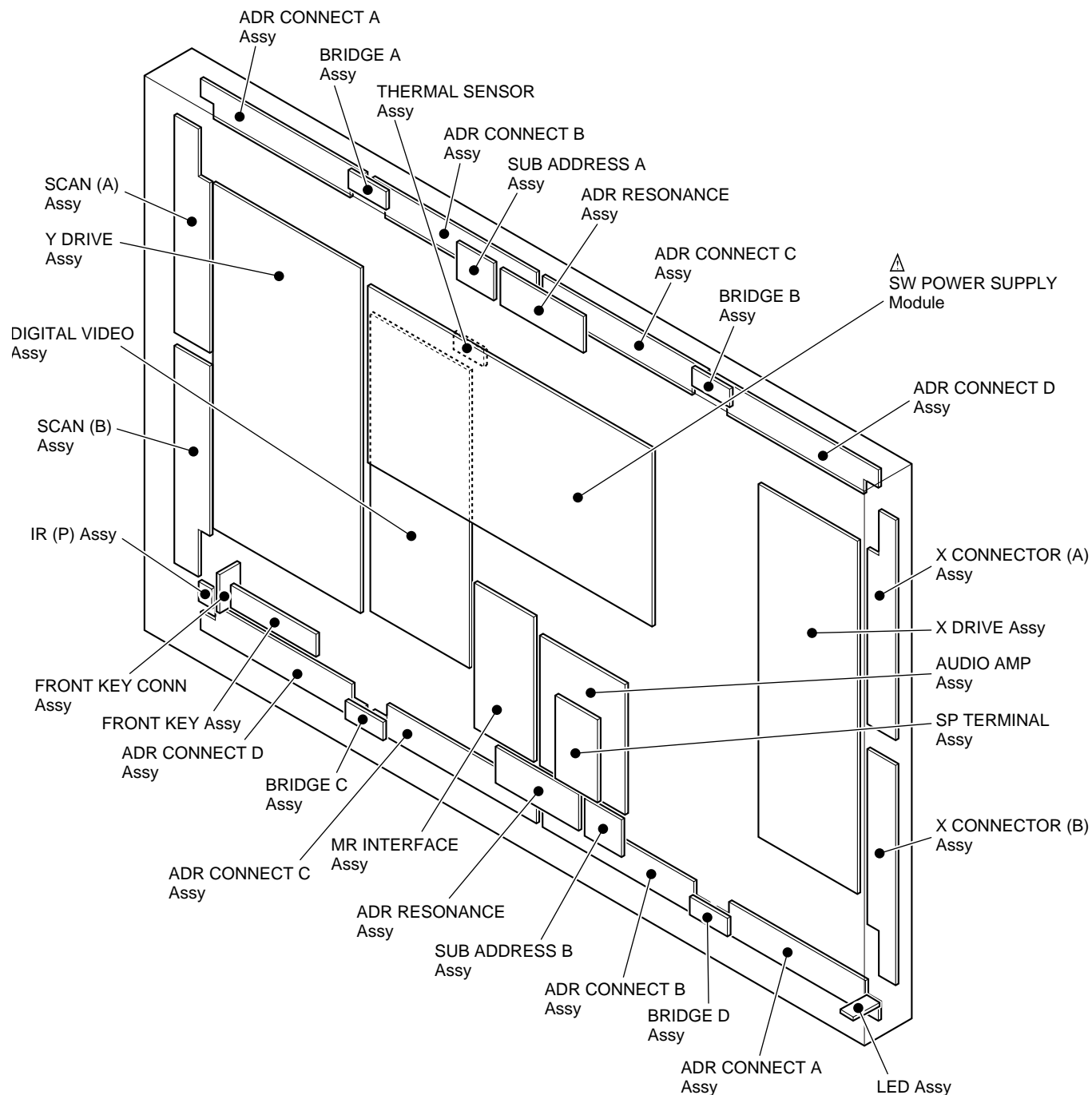
■ Display Information

Data	Model
MX5	PDP-503MX (initial value)
MX4	PDP-433MX
MD5	Module 50 inches
MD4	Module 43 inches
HD5	PDP-503HD
HD4	PDP-433HD

7. GENERAL INFORMATION

7.1 DIAGNOSIS

7.1.1 CONFIGURATION OF THE PC BOARD



7.1.2 DIAGNOSIS FOR SHUTDOWN AND POWER-DOWN DIAGNOSIS BY LED

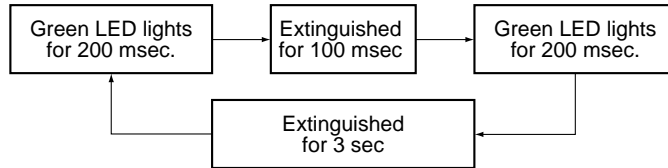
This unit has self-diagnosis functions against abnormalities in the internal circuits and other operational abnormalities, and if any abnormality is detected, the STANDBY/ON indicator (LED) blinks to alert you of it.

How the indicator blinks and possible failure points and power-down points are explained below:

● Shutdown

- Operations : When a microcomputer has detected an abnormality, it turns the power supply to OFF.
- LED display : Blinking in green

Example: How the LED blinks when DIGITAL-IIC communications fail



Number of blinking	Reason
1	Panel Microcomputer failure
2	DIGITAL-IIC communication failure
4	Temperature abnormality

How to release shutdown

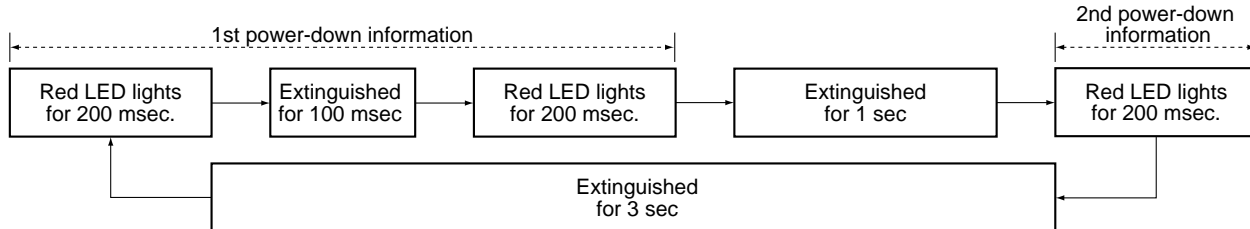
Press the power key on the remote control to switch the unit back on.
(It is not necessary to press the MAIN POWER button to turn off the unit.)

● Power-down

- Operations : In an emergency, the protection circuits are activated, and the power is turned off.
- LED display : Blinking red

Note: If more than two protection circuits are activated at almost the same time, the LED indicates this by its blinking-pattern.

Example: How the LED blinks for the first power-down (Y-DC/DC CONVERTER) and the second power-down (Y DRIVE)



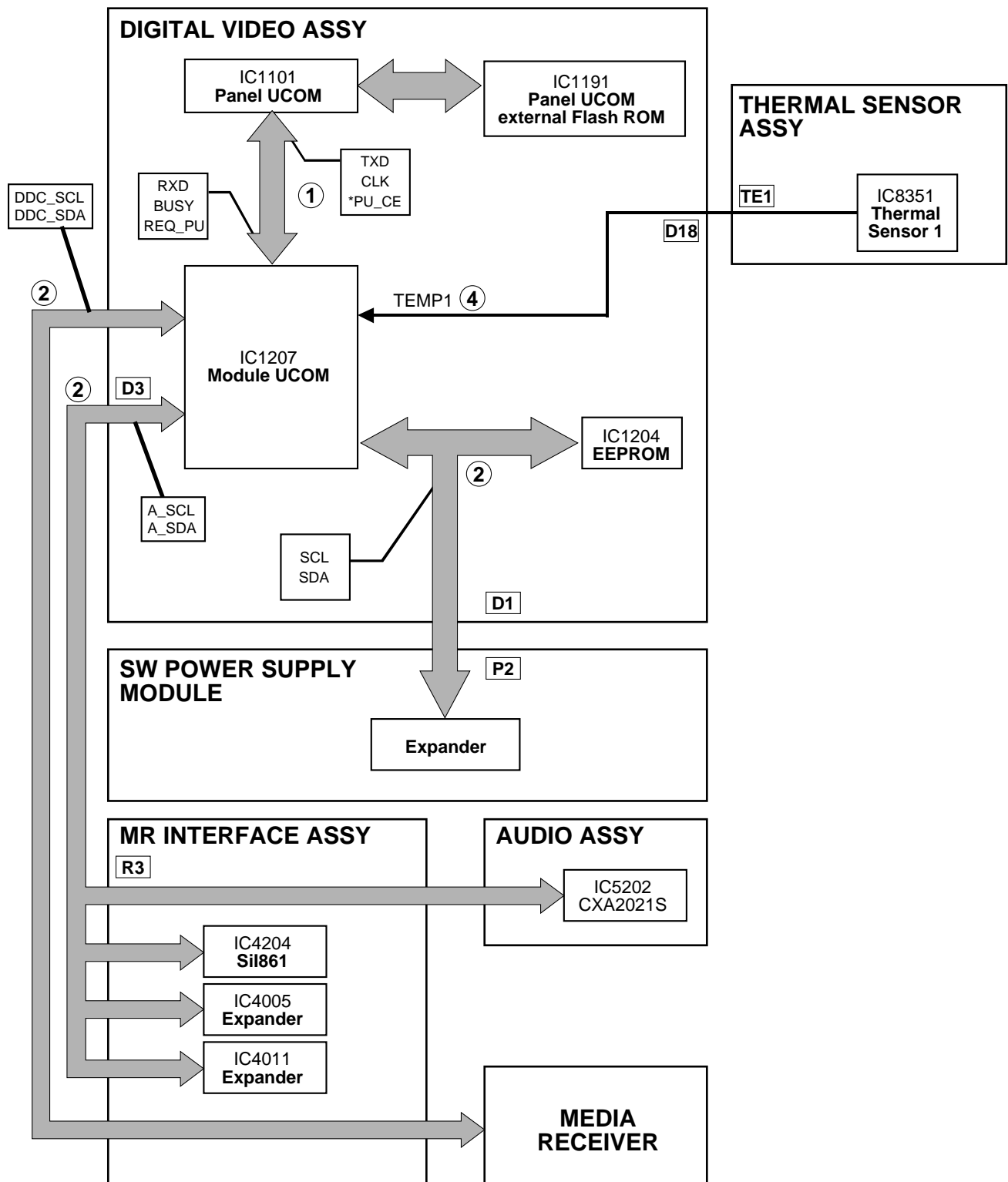
Number of blinks	Failure Point
1	Y-DRIVE
2	Y-DC/DC CONVERTER
3	X-DC/DC CONVERTER
4	X-DRIVE
5	Power supply
6	Address junction
7	Address resonance
8	DIGITAL-DC/DC CONVERTER

How to release power-down

Set the MAIN POWER button to OFF, and wait for about 30 seconds until the LED for PD (power-down) in the power-supply module is extinguished. Wait another 5 seconds, then recover the unit by setting the MAIN POWER button to ON.

Note: After power-down is released, the unit restarts and goes to Standby mode.

● Block Diagram of the Shutdown Signal System ("STANDBY/ON" LED: Blinking in green)



Note: The figures ① - ④ indicate the number of times the "STANDBY/ON" LED blinks when shutdown occurs in the corresponding route.

● Shutdown diagnosis

① Panel microcomputer failure

Screen display

Condition : When a module microcomputer failed in communication with a panel microcomputer
 Results : An OSD is displayed for 30 seconds after the failure is detected; then the power is shut down.

Possible causes

- Open/short-circuit of the communication lines in the assembly

E06

② DIGITAL-IIC communication failure

Condition : When a module microcomputer failed in communication with an external EEPROM or EXPANDER
 Results : An OSD is displayed for 30 seconds after the failure is detected; then the power is shut down.

Note: A DIGITAL-IIC communication failure may occur in Standby mode.

Possible causes

- Open / Short-circuit of communication line in the DIGITAL VIDEO, MR INTERFACE and AUDIO Assys
- Breaking of wire between the following points:
 DIGITAL VIDEO Assy (D1) ↔ SW POWER SUPPLY Module (P2)
 DIGITAL VIDEO Assy (D3) ↔ MR INTERFACE Assy (R3)
 MR INTERFACE Assy (R23) ↔ AUDIO Assy (A24)
 System Cable

E06

③ Abnormally high temperature

Condition : when the internal temperature of the unit becomes abnormally high
 Results : An OSD is displayed for 30 seconds after the failure is detected; then the power is shut down.

Note: If the internal temperature of the unit becomes lower while the OSD is displayed, the unit returns to normal operation.

Possible causes if this abnormality occurs in an environment in which the temperature is not so high

Disconnection between the DIGITAL VIDEO Assy (D18) and temperature sensor 1 (TE1)

E04

Reference

Shutdown temperature of each temperature sensor
 Sensor Temp ≥ 78

	1/13	INPUT1 No SIG			
1	CENTER Version	MR MAIN E 2001/09/25 H			
2	OSD Version	MR OSD 2001/09/10 A			
3	CVIC Version	W2001/09/12 09:00	X2001/09/12 09:07	V2001/09/12 09:10	
4	TTXP Version	TTX PRG		061	
5	MONITOR Version	F6 91 10			
6	PANEL Version	-00			
7	FLASH Version	-05			
8	MONITOR Model	01			
9	Model Select Main	0			
10	Model Select AV	4			
11	Model Select MONITOR	0			
12	Sensore Temp	+28			
13	Center Acutime	16	H 41 M		
14		RESET OFF			
15	Monitor Acutime	47	H 42 M		
16		RESET OFF			
17	Pulse Acutime	164			
18		RESET OFF			

● Types and functions of the various protection circuits (P.D. circuits)

Assy Name	Red "STAND-BY/ON" LED Number of Blinks	Type of P.D. Circuits	Function	Remarks
Y DRIVE Assy	1	VCP OCP	P.D. by VCP overcurrent	
	2	VOFS OVP	P.D. by VOFS overvoltage	
		VOFS UVP	P.D. by VOFS undervoltage (= overcurrent)	
		VH OVP	P.D. by VH overvoltage	
		VH UVP	P.D. by VH undervoltage (= overcurrent)	
		IC5V UVP	P.D. by IC5V undervoltage (= overcurrent)	
X DRIVE Assy	3	VRN OVP	P.D. by VRN overvoltage	
		VRN UVP	P.D. by VRN undervoltage (= overcurrent)	
	4	VCP OCP	P.D. by VCP overcurrent	
SW POWER SUPPLY Module	5	VSUS OVP	P.D. by VSUS overvoltage	
		VSUS UVP	P.D. by VSUS undervoltage (= overcurrent)	
		VADR OVP	P.D. by VADR overvoltage	
		VADR UVP	P.D. by VADR undervoltage (= overcurrent)	
		15V OVP	P.D. by 15V overvoltage	
		15V UVP	P.D. by 15V undervoltage (= overcurrent)	
		12V UVP	P.D. by 12V undervoltage (= overcurrent)	
		6.5V OVP	P.D. by 6.5V overvoltage	
		6.5V UVP	P.D. by 6.5V undervoltage (= overcurrent)	
		13.5V UVP	P.D. by 13.5V undervoltage (= overcurrent)	
		-9V UVP	P.D. by -9V undervoltage (= overcurrent)	
		+B OVP	P.D. by +B overvoltage	
		+B OCP	P.D. by +B overcurrent	
		AC200V P.D.	P.D. by AC200V applied	Note 1
			PFC module overheat protection	
			VSUS arc resistance overheat protection	
ADR CONNECT Assy	6	ADR.PD	P.D. by disconnection of connectors	
RESONANCE Assy	7	ADR.K.PD	P.D. by ICP open and TCP defective	
DIGITAL VIDEO Assy	8	5.0V OVP	P.D. by 5V overvoltage	
		5.0V UVP	P.D. by 5V undervoltage (= overcurrent)	
		3.3V OVP	P.D. by 3.3V overvoltage	
		3.3V UVP	P.D. by 3.3V undervoltage (= overcurrent)	
		2.5V OVP	P.D. by 2.5V overvoltage	
		2.5V UVP	P.D. by 2.5V undervoltage (= overcurrent)	

Reference

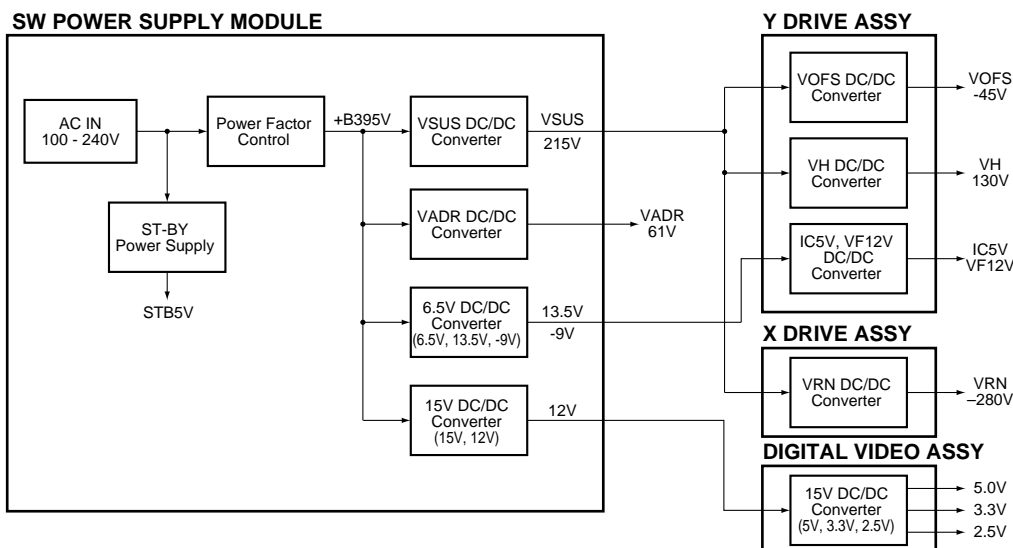
OVP : Over Voltage Protect
 UVP : Under Voltage Protect
 OCP : Over Current Protect
 PD : Power Down

Note 1: The AC200V P.D. circuit is not mounted in the PDP-503PE and PDP-503PU models.

● Diagnosis of error points in the various protection-circuit (P.D. circuits) operations (Red "STANDBY/ON" LED blinks)

Number of Blinks	P.D. Point in Operation	Error Point	Possible Part in failure	Circuit State	P.D. Circuit in Operation	Diagnosis Condition
1	Y DRIVE	Y DRIVE Assy	IC2206, IC2214 (Pulse module), IC2203, IC2204, IC2212, IC2213, IC2213, IC2217, R2209	K2211 Lo	VCP OCP	
2	Y DC DC	VOFS D/D CONV. BLOCK (Y DRIVE Assy)	IC2702, IC2709, IC2715	K2712 Lo	VOFS OVP	Drive section (control signals, output elements etc.) in normal operation
		VOFS D/D CONV. BLOCK (Y DRIVE Assy)	IC2701, IC2702, IC2709, IC2715	K2709 Lo	VOFS UVP	VOFS D/D CONV. BLOCK in normal operation
		VH D/D CONV. BLOCK (Y DRIVE Assy)	IC2712, IC2716	K2719 Lo	VH OVP	Drive section (control signals, output elements etc.) in normal operation
		VH D/D CONV. BLOCK (Y DRIVE Assy)	IC2711, IC2712, IC2716	K2718 Lo	VH UVP	VH D/D CONV. BLOCK in normal operation
		SCAN (A), (B) Assy	SCAN IC			SCAN Assy in normal operation
3	X DC DC	IC5V D/D CONV. BLOCK (Y DRIVE Assy)	IC2704, IC2706, IC2717	K2713 Lo	IC5V UVP	IC5V D/D CONV. BLOCK in normal operation
		IC5V D/D CONV. BLOCK (Y DRIVE Assy)	SCAN IC	K3708 Lo	VRN OVP	SCAN Assy in normal operation
		VRN D/D CONV. BLOCK (X DRIVE Assy)	IC3702, IC3712			
		VRN D/D CONV. BLOCK (X DRIVE Assy)	IC3701, IC3702, IC3712	K3705 Lo	VRN UVP	Drive section (control signals, output elements etc.) in normal operation
		X DRIVE Assy	Q3122			VRN D/D CONV. BLOCK in normal operation
4	X DRIVE	X DRIVE Assy	IC3200, IC3201 (pulse module), IC3103, IC3104, IC3106, IC3107, IC3110, IC3113, R3109	K3103 Lo	VCP OCP	
5	PS	X DRIVE Assy	IC3200, IC3201 (Pulse module)			In a case where PD does not occur if the P4 connector is disconnected
		Y DRIVE Assy	IC2206, IC2214 (Pulse module)			In a case where PD does not occur if the P3 connector is disconnected
		MX AUDIO Assy	IC8601 (Audio IC)			In a case where PD does not occur if the P6 connector is disconnected
		ADDRESS CONNECT A - D Assy, RESONANCE Assy, D/D CONV. BLOCK (DIGITAL VIDEO Assy)				In a case where PD does not occur if Pin 5 of the P2 connector is disconnected
		SW POWER SUPPLY Module	SW POWER SUPPLY Module			In a case where the voltage is not output even if the P4, P3, P6 connectors and Pin 5 of the P2 connectors are disconnected
6	ADR	ADDRESS CONNECT A-D Assy	Disconnection of the D8 - D15 connectors		ADR. PD	
7	ADR K	RESONANCE Assy	TCP damage of IC6704 (ICP), disconnection of the D16 and D17 connectors, panel microcomputer is defective, external Flash ROM of the panel microcomputer is defective.		ADR. K. PD	
8	DIGITAL DC DC	D/D CONV. BLOCK (DIGITAL VIDEO Assy)	IC1901	K1901 Lo	5.0V OVP	<p>Note on PS PD When the Red "STANDBY/ON" LED blinks five times (power supply PD)</p> <p>1 When the internal protection circuit of the SW POWER SUPPLY Module worked</p> <p>2 When a microcomputer was not able to identify the PD point</p> <p>Care must be taken, because five blinks of the red LED does not always mean that the protection circuit of the SW POWER SUPPLY Module is activated.</p>
		D/D CONV. BLOCK (DIGITAL VIDEO Assy)	IC1901	K1902 Lo	5.0V UVP	
		D/D CONV. BLOCK (DIGITAL VIDEO Assy)	IC1901	K1903 Lo	3.3V OVP	
		D/D CONV. BLOCK (DIGITAL VIDEO Assy)	IC1901	K1904 Lo	3.3V UVP	
		D/D CONV. BLOCK (DIGITAL VIDEO Assy)	IC1901	K1905 Lo	2.5V OVP	
				K1906 Lo	2.5V UVP	

● Block diagram of the Power supply section



● Supplementary information

1. Power on/off switch for the large-signal system (SW102)

Function: Only the power for the small-signal system (15V, 12V, 6.5V, 13.5V, and -9V) is on, and the power for the large-signal system (VSUS, VADR) is off.

Usage: Use when only an operational check for the small-signal system is required.

Supplementary information:

When this switch is to be used, the wires of pin 5 (DIG, ADR, and PD) of the P2 connector of the power-supply module should be disconnected to prevent the PD circuit from operating. To turn the power of the large-signal system off without using this switch, operation from an external PC through RS-232C commands "DRF" is basically required. In this case, the above procedure is not required, as the PD circuit is muted by software.

How to turn on the power with a command sent via RS-232C communication when the large signal system's power is off

- ① Check that the unit is in Standby mode.
- ② Transmit the RS-232C command "DRF."
- ③ Turn on the power using the remote control unit, side keys, or the command "PON."

Note: Once the power is turned off, the setting of the large signal system power returns to ON.

If you wish to turn on the power when the large signal system's power is off, transmit the DRF command each time.

2. 200V AC power-down switch (SW101)

Function: While 200V AC voltage is applied, operation of the PD circuit is turned on and off (ON when the switch is set to 100V AC, and OFF when the switch is set to 200V AC).

Setting: For the PU model only, the switch is set to 100V, and for other models, it is set to 200V.

3. Temperature compensation of the VSUS voltage for the drive system

Function: Control the power supply voltage mentioned above according to temperature. (Temperature compensation works so that the voltage is lowered on the lower-temperature side, and is raised on the higher-temperature side.)

Purpose: To improve the yield by compensating the temperature characteristics of the panel.

Supplementary information:

For this model, temperature compensation is performed only for the VSUS voltage, and not for the VOFS voltage, and it is controlled by software.

4. When a fuse blows

- If a fuse blows, never turn the power on again only after replacing the fuse. (In most cases, the fuse itself did not have any problem. So as long as factors of overcurrent have not been removed, chances of destruction increase every time the power is turned on. In the worst case, about a dozen parts may be destroyed.)
- Generally, the whole power-supply module assembly must be replaced.

5. Voltage adjustment of the panel drive

As this model employs the electronic VR system for the VSUS and VOFS voltages, and as the voltage-adjustment data are stored in the DIGITAL assembly, voltage adjustment of the panel drive is not necessary when the power-supply modules are changed. (For VADR, VH, and VRN, adjustments with semifixed VR controls are necessary.)

For this model, as the power-supply block has been developed and designed by an outside vendor, at the point you know which module is a cause of failure (through diagnosis described elsewhere in this manual), change the corresponding modules, and do not diagnose or repair the module.

Similarly, the switches and the semifixed VRs inside the power-supply module must not be adjusted without a special reason.

7.1.3 DISASSEMBLY

About detect switch

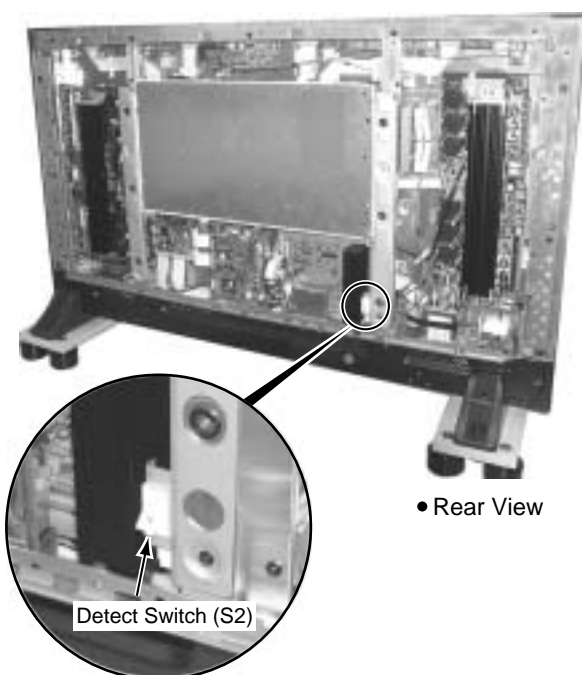
This unit adopts the "Rear Case opened ! detection" system. Please work in service as follows by all means.

● Outline and notes

The PDP-433HD-series models use digital signals for video transmission from the Media Receiver to the Plasma Display. To address the need for copyright protection, content protection by HDCP is adopted.

Furthermore, the detection switch is equipped so that the power can never be turned on again if the rear case of the Plasma Display is opened without a specified procedure.

The detection switch does not work when the power is off or when the unit is switched to Standby mode from the remote control unit. Before servicing the Plasma Display, immobilize this switch with an electrical tape or equivalent, then turn on the power. Be sure to remove the tape after the repair is finished.



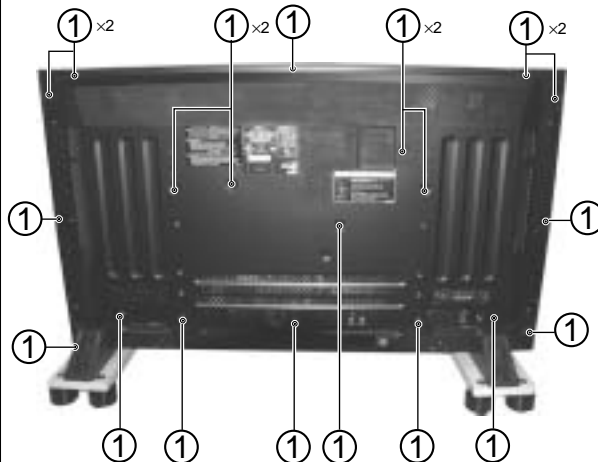
● Should the detection switch be activated

If the detection switch is activated, the red LED continuously blinks at intervals of 300 ms. After closing the rear case or immobilizing the detection switch with an electrical tape or equivalent, press the MENU, ENTER, then POWER keys of the remote control unit in that order. The unit restarts and enters Service Factory mode. Turn off the power using the remote control unit.

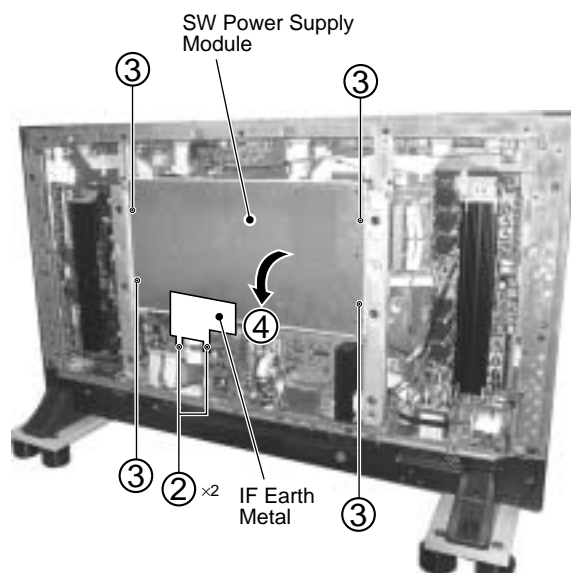
Then, the unit can be operated normally.

SW Power Supply Module

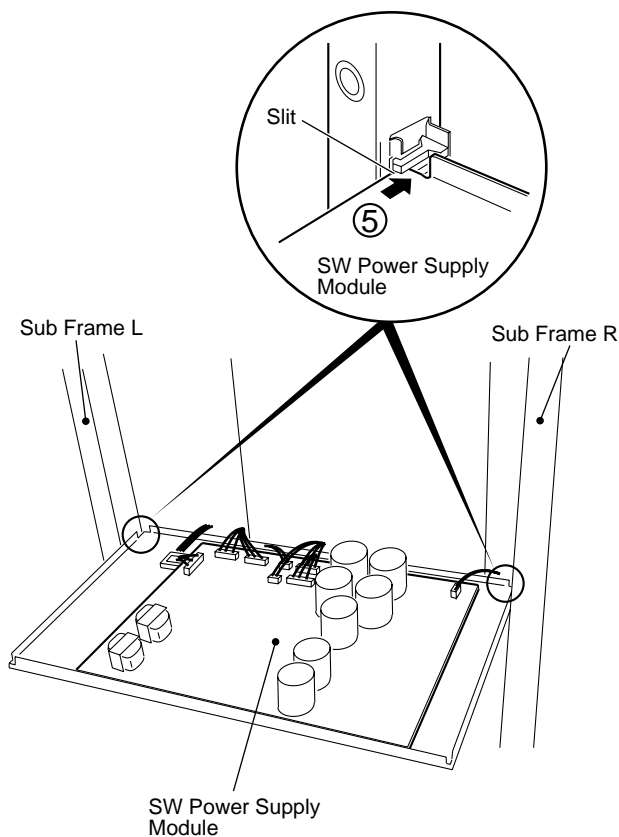
- ① Remove the Rear Case 43P. (Screws × 19)



- ② Remove the IF Earth Metal. (Screws × 2)
- ③ Remove the four screws.
- ④ Remove the SW Power Supply Module.



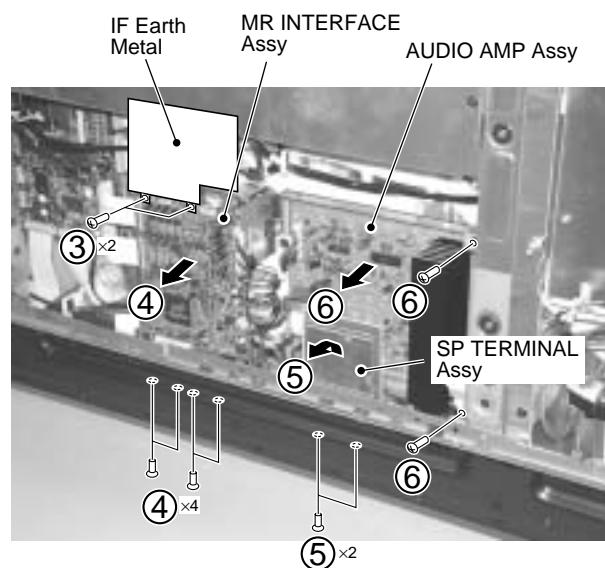
- ⑤ Insert the SW Power Supply Module into the slit of Sub Frame L and R.



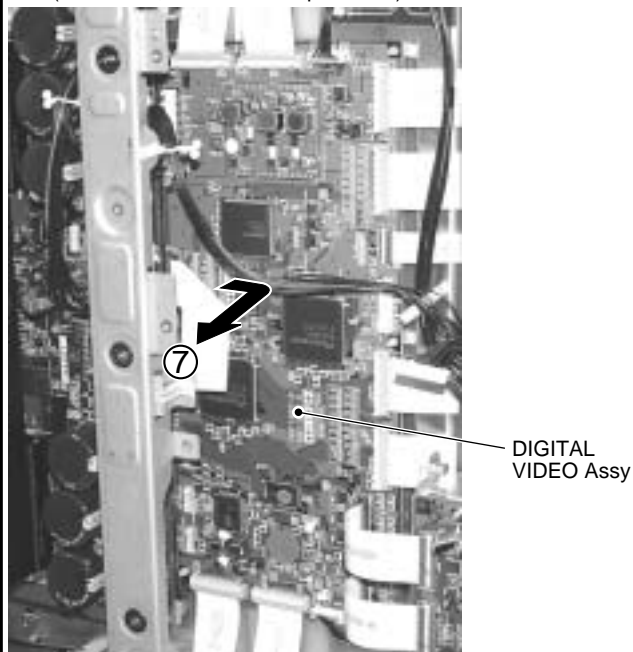
Diagnosis

MR INTERFACE, AUDIO AMP SP TERMINAL and DIGITAL VIDEO Assys

- ① Remove the Rear Case 43P. (Screws × 19)
- ② Remove the SW Power Supply Module. (Connector, Screws × 4)
- ③ Remove the IF Earth Metal (Screws × 2)
- ④ Remove the MR INTERFACE Assy (Connector, Screws × 4)
- ⑤ Remove the SP TERMINAL Assy (Connector, Screws × 2)
- ⑥ Remove the AUDIO AMP Assy (Connector, Screws × 2)

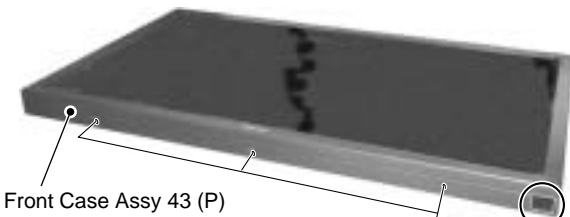


- ⑦ Remove the DIGITAL VIDEO Assy (Connector, Circuit Board Spacer × 6)



Y DRIVE, SCAN (A), (B) Assy

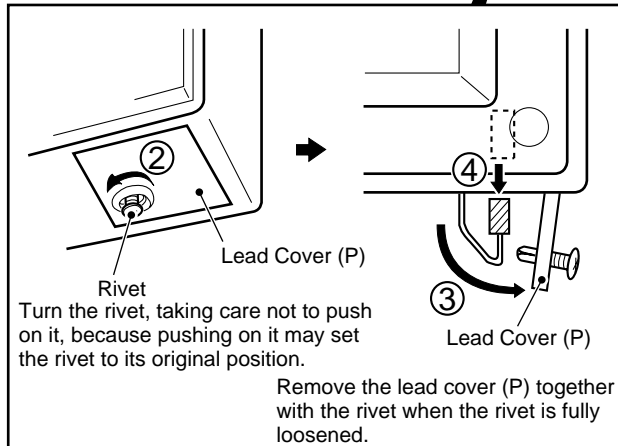
- ① Remove the three screws.



- ② Loosen a rivet.

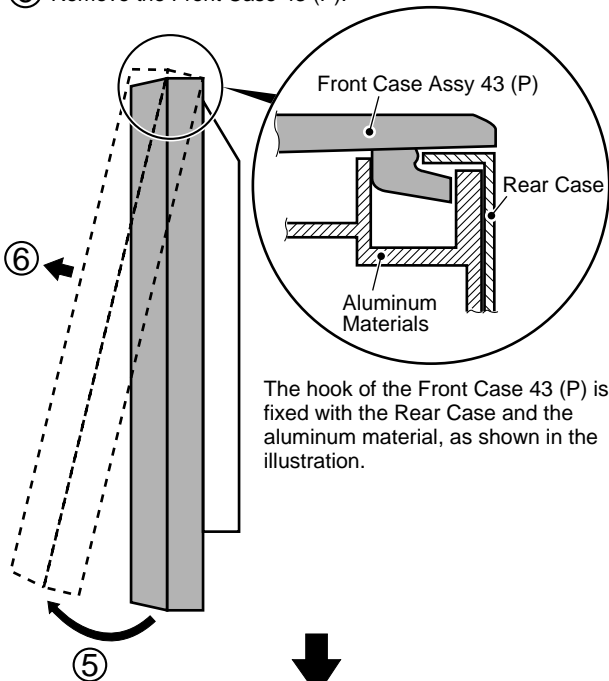
- ③ Remove the Lead Cover (P).

- ④ Pull out a Flexible Cable.



- ⑤ Detach the lower part of the Front Case 43 (P) so that it can swing open hinged at the top.

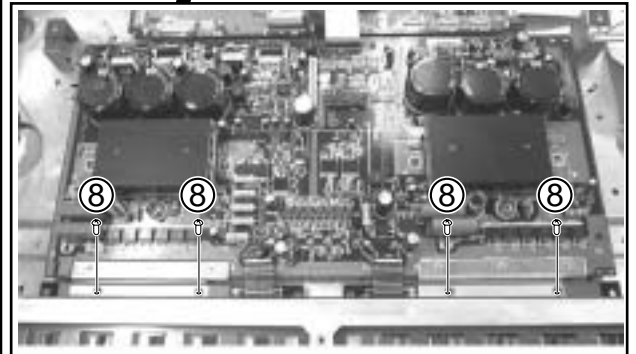
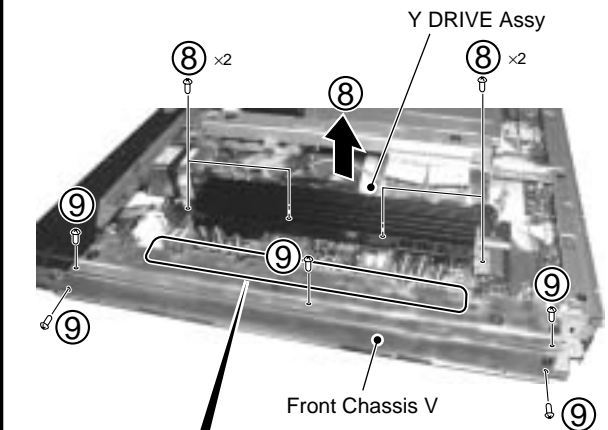
- ⑥ Remove the Front Case 43 (P).



- ⑦ Remove the Rear Case 43P. (Screws × 19)

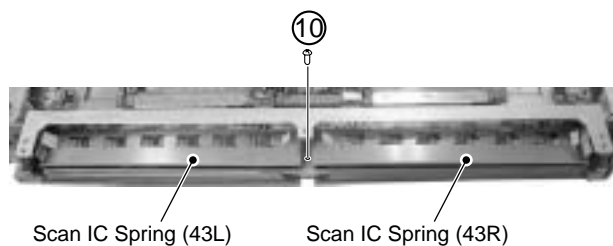
- ⑧ Remove the Y DRIVE Assy.
(Connector, PCB Spacer × 3, Screws × 8)

- ⑨ Remove the Front Chassis V. (Screws × 5)

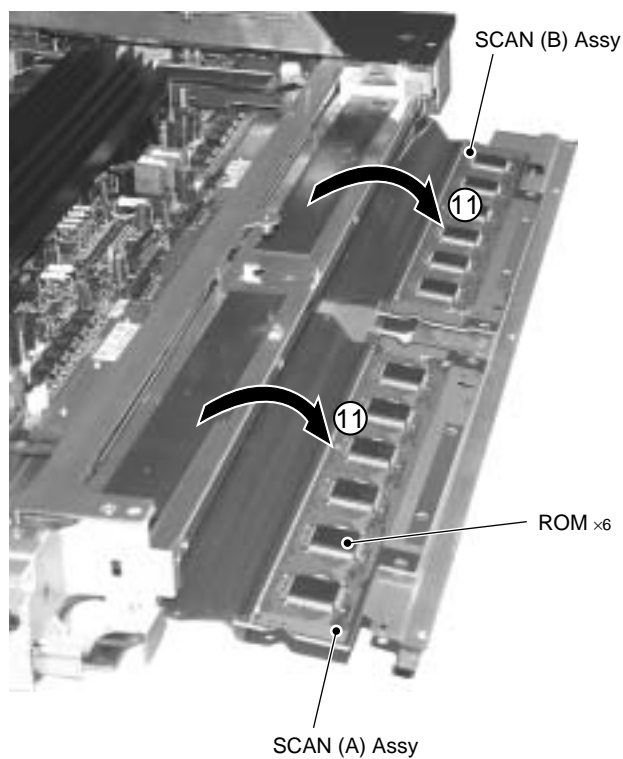


X DRIVE Assy

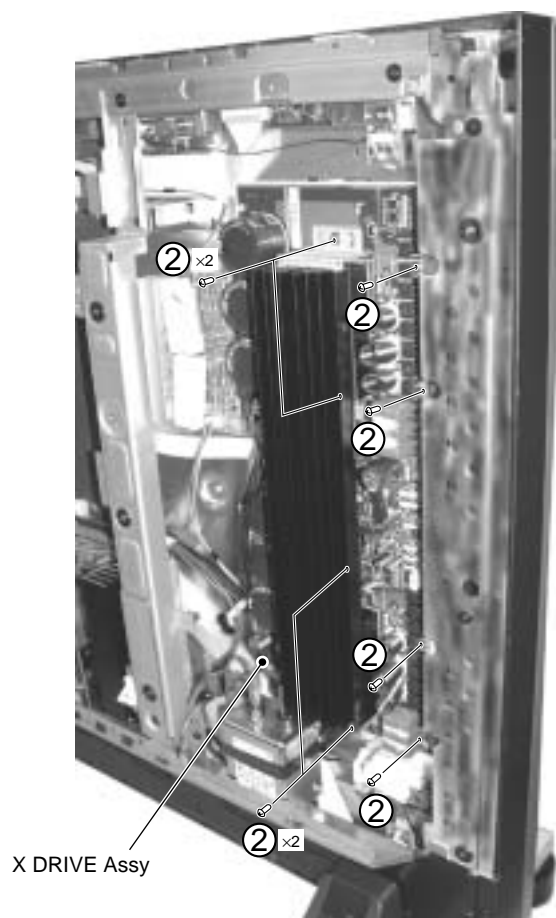
- ⑩ Remove the Scan IC Spring (43L) and (43R).
(Screws × 1)



- ⑪ Reverse the SCAN (A) and SCAN (B) Assemblies.
⑫ Exchange the ROM if necessary.



- ① Remove the Rear Case 43P. (Screws × 19)
② Remove the X DRIVE Assy.
(Connector, PCB Spacer × 3, Screws × 8)



7.2 IC INFORMATION

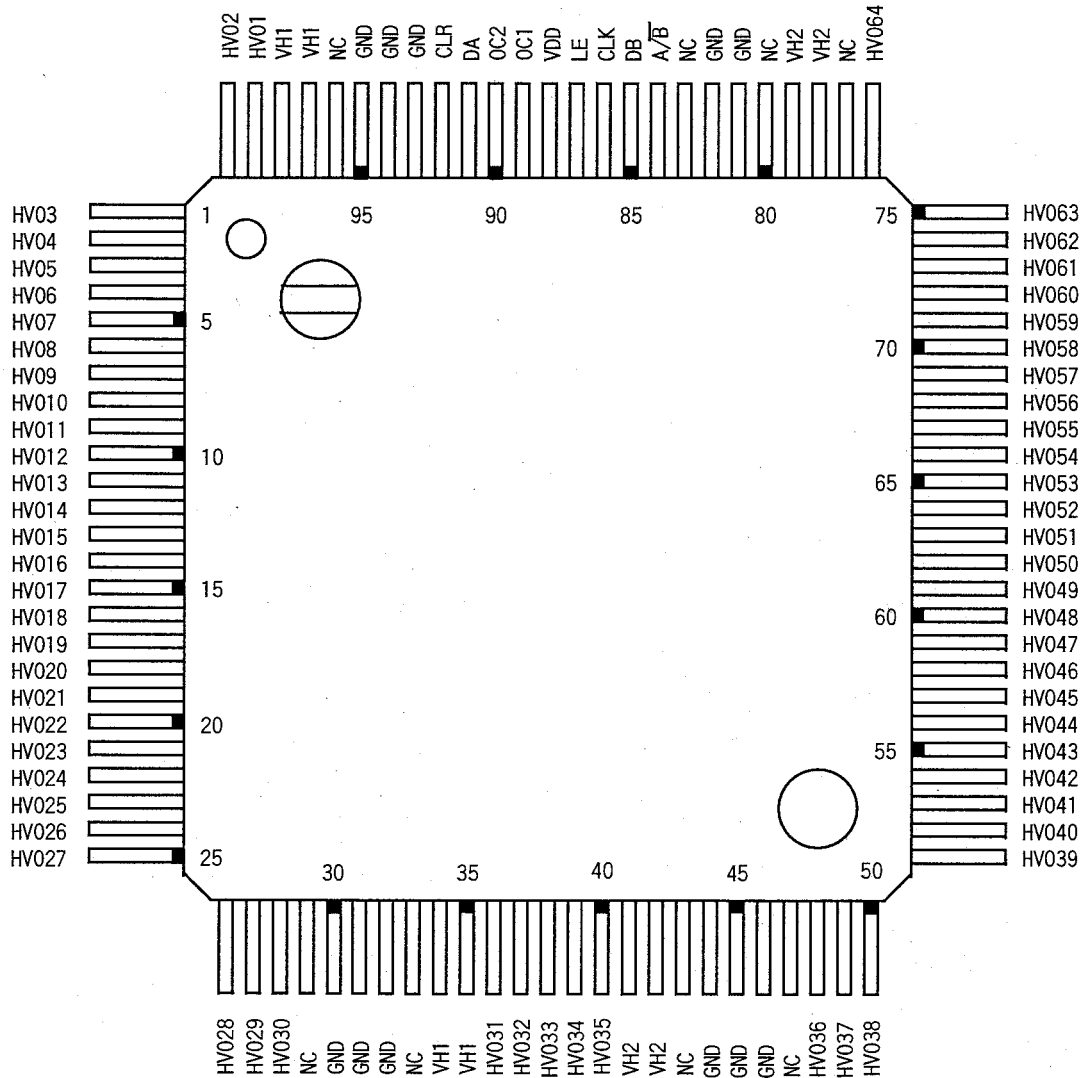
• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

• List of IC

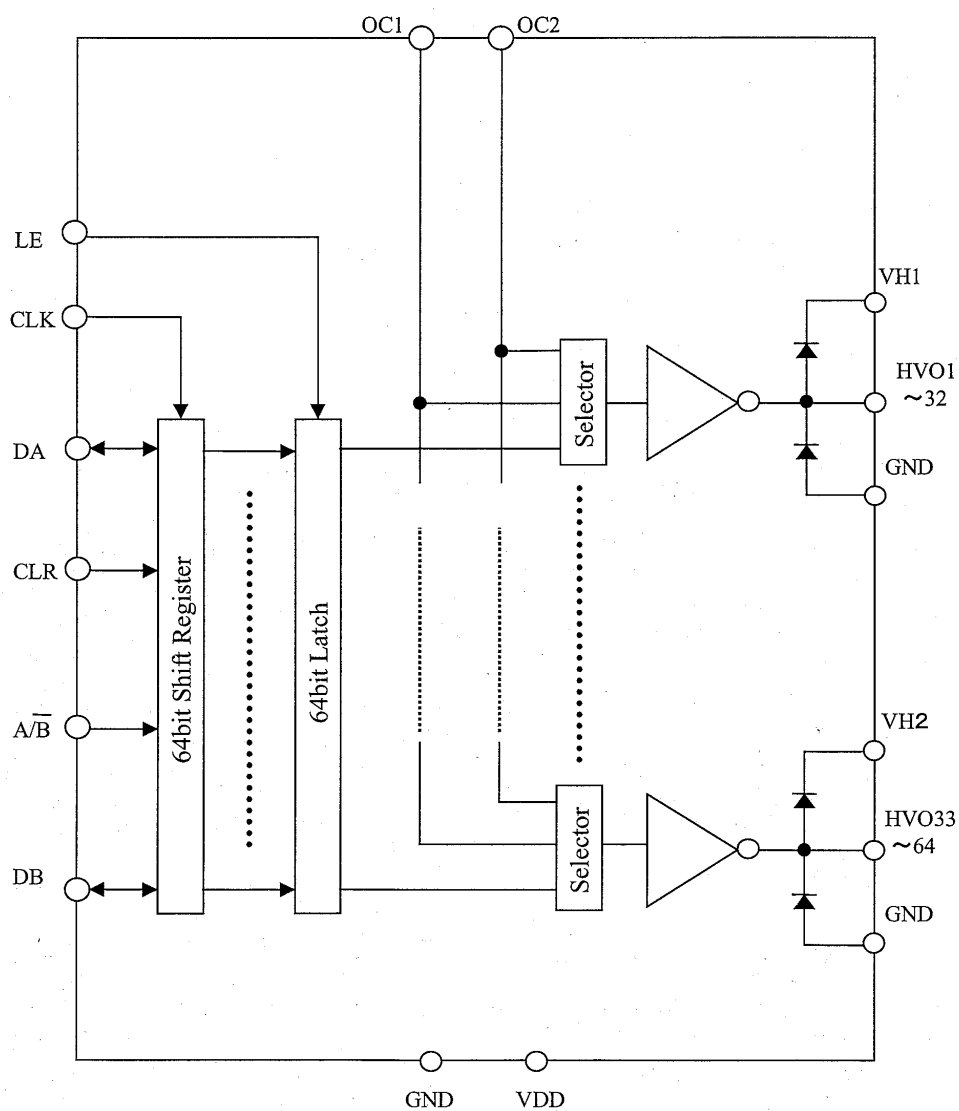
SN755864APZP, HD64F2328VF, PE1013B, M30624FGAFP, PD6358A, PST9246N, FS781BZB, STK795-470

■ SN755864APZP (SCAN A ASSY : IC6201 - IC6206, SCAN B ASSY : IC6001 - IC6006) Scan IC

● Pin Assignment (Top view)



● Block Diagram



● Pin Function

Name	Pin No.	I/O	Num.	Function
CLK	86	I	1	Shift clock (start edge partial response)
DA	91	I/O	1	The serial data input of shifting register
DB	85	I/O	1	The serial data output of shifting register
LE	40	I	1	It output data done a latch of by "H" level
CLR	92	I	1	It do data of shift register with "H" by "L" level
A/B	84	I	1	A shift directional control signal of shift register
OC1	89	I	1	An output control terminal of HVO
OC2	90	I	1	An output control terminal of HVO
HVO	99, 100, 1-28 36-40, 48-76	O	64	High voltage drive output (HVO1 - HVO64)
VDD	88	—	1	Logic power supply
GND	30-32, 44-46 81-82, 93, 94-95	—	11	Standard potential. This is common to HVO1 - HVO64.
VH1	34, 35, 97, 98	—	4	The high potential circuit power supply which is common to HVO1 - HVO32
VH2	41, 42, 78, 79	—	4	The high potential circuit power supply which is common to HVO33 - HVO64
NC	29, 33, 43, 47 77, 80, 83, 96	—	8	It is the insulation electrically

HD64F2328VF (DIGITAL VIDEO ASSY : IC1101)

Panel Microcomputer

● Pin Function (1/3)

No.	Pin Name	Function
1	CS_23	PE5064 (IC1703) control output
2	NC	NC Terminal
3	VSS	GND
4	VSS	GND
5	VCC	3.3V power supply
6	UA0	Address bus
7	UA1	Address bus
8	UA2	Address bus
9	UA3	Address bus
10	VSS	GND
11	UA4	Address bus
12	UA5	Address bus
13	UA6	Address bus
14	UA7	Address bus
15	UA8	Address bus
16	UA9	Address bus
17	UA10	Address bus
18	UA11	Address bus
19	VSS	GND
20	UA12	Address bus
21	UA13	Address bus
22	UA14	Address bus
23	UA15	Address bus
24	UA16	Address bus
25	UA17	Address bus
26	UA18	Address bus
27	UA19	Address bus
28	VSS	GND
29	UA20	Address bus
30	PA5	NC terminal
31	PA6	NC terminal
32	PA7	NC terminal
33	CE_PN	Enables / for panel microcomputer
34	CE_PN	Enables / for panel microcomputer
35	VSS	GND
36	VSS	GND
37	APLP	The APL value acquisition trigger signal input
38	VD_31	The V signal input from IC1401 (PD6358)
39	VCC	3.3V power supply
40	UD0	Data bus
41	UD1	Data bus
42	UD2	Data bus
43	UD3	Data bus
44	VSS	GND
45	UD4	Data bus
46	UD5	Data bus
47	UD6	Data bus
48	UD7	Data bus
49	UD8	Data bus
50	UD9	Data bus

● Pin Function (2/3)

No.	Pin Name	Function
51	UD10	Data bus
52	UD11	Data bus
53	VSS	GND
54	UD12	Data bus
55	UD13	Data bus
56	UD14	Data bus
57	UD15	Data bus
58	VCC	3.3V power supply
59	D_TXD	Communication with IC1207 (module microcomputer)
60	EXT_TXD	Communication with the outside (program notes)
61	D_RXD	Communication with IC1207 (module microcomputer)
62	EXT_RXD	Communication with the outside (program notes)
63	D_CLK	Communication with IC1207 (module microcomputer)
64	P60	NC terminal
65	VSS	GND
66	CS_FLASH	A flash memory control terminal
67	VSS	GND
68	VSS	GND
69	P61	NC terminal
70	UDREQ	IC1703 (PE5064) control terminal
71	P63	NC terminal
72	WE_FLASH	A flash memory note control signal (unused)
73	BUSY	The command receipt of a message lye Norwich output
74	REQ_PU	A communication demand to a module microcomputer
75	SEL23B	IC1703 (PE5064) control terminal
76	CLRB	IC1703 (PE5064) control terminal
77	FR_SEL	The free run select signal output
78	RST31B	The reset output to IC1301, IC1401 (PD6358)
79	RST23B	The reset output to IC1703 (PE5064)
80	FWE	Microcomputer program note control signal
81	RESET	Reset input
82	NMI	The at the rate of tang input (unused)
83	STBY	The hardware standby input (unused)
84	VCC	3.3V power supply
85	XTAL	A clock oscillation child connection terminal
86	EXTAL	A clock oscillation child connection terminal
87	VSS	GND
88	PF7	NC terminal
89	VCC	3.3V power supply
90	PF6	NC terminal
91	RDB	A read control terminal from an outside slave device
92	HWRB	A wright control terminal to an outside slave device
93	PF3	NC terminal
94	PF2	NC terminal
95	PF1	NC terminal
96	PF0	NC terminal
97	P50	NC terminal
98	P51	NC terminal
99	VSS	GND
100	VSS	GND

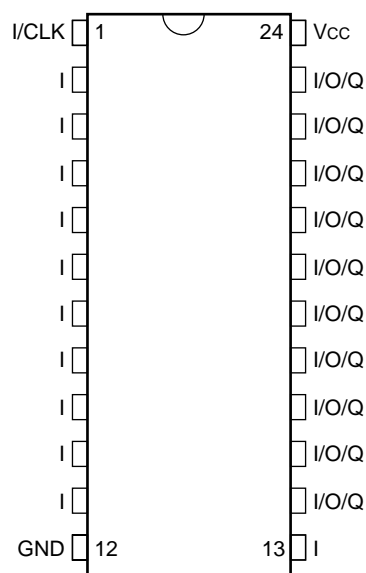
● Pin Function (3/3)

No.	Pin Name	Function
101	P52	NC terminal
102	P53	NC terminal
103	AVCC	3.3V power supply
104	VREF	A/D, D/A reference voltage input (unused)
105	STOPB	The drive control input from IC1703 (PE5064)
106	P41	NC terminal
107	RYBY	The flash memory note ready input
108	ADR_K_EMG_L1	The emergency input from panel bottom address resonance block
109	ADR_K_EMG_U1	The emergency input from panel upper address resonance block
110	ADR_K_EMG_L2	The emergency input from panel bottom address resonance block (unused)
111	ADR_K_EMG_U2	The emergency input from panel upper address resonance block (unused)
112	P47	NC terminal
113	AVSS	GND
114	VSS	GND
115	MUTE_ADR	The panel mute signal input
116	MUTE_SUS	The X and Y drive mute signal output (unused)
117	P15	NC terminal
118	HD	The HD signal input from outside Assy (RGB Assy etc.)
119	P13	NC terminal
120	P12	NC terminal
121	PC_VIDEO	The PC/Video identification output
122	VD	The HD signal input from outside Assy (RGB Assy etc.)
123	MD0	The microcomputer mode of operation select signal input
124	MD1	The microcomputer mode of operation select signal input
125	MD2	The microcomputer mode of operation select signal input
126	PG0	NC terminal
127	CS_31Y	IC1301, IC1401 (PD6358) control signal
128	CS_31X	IC1301, IC1401 (PD6358) control signal

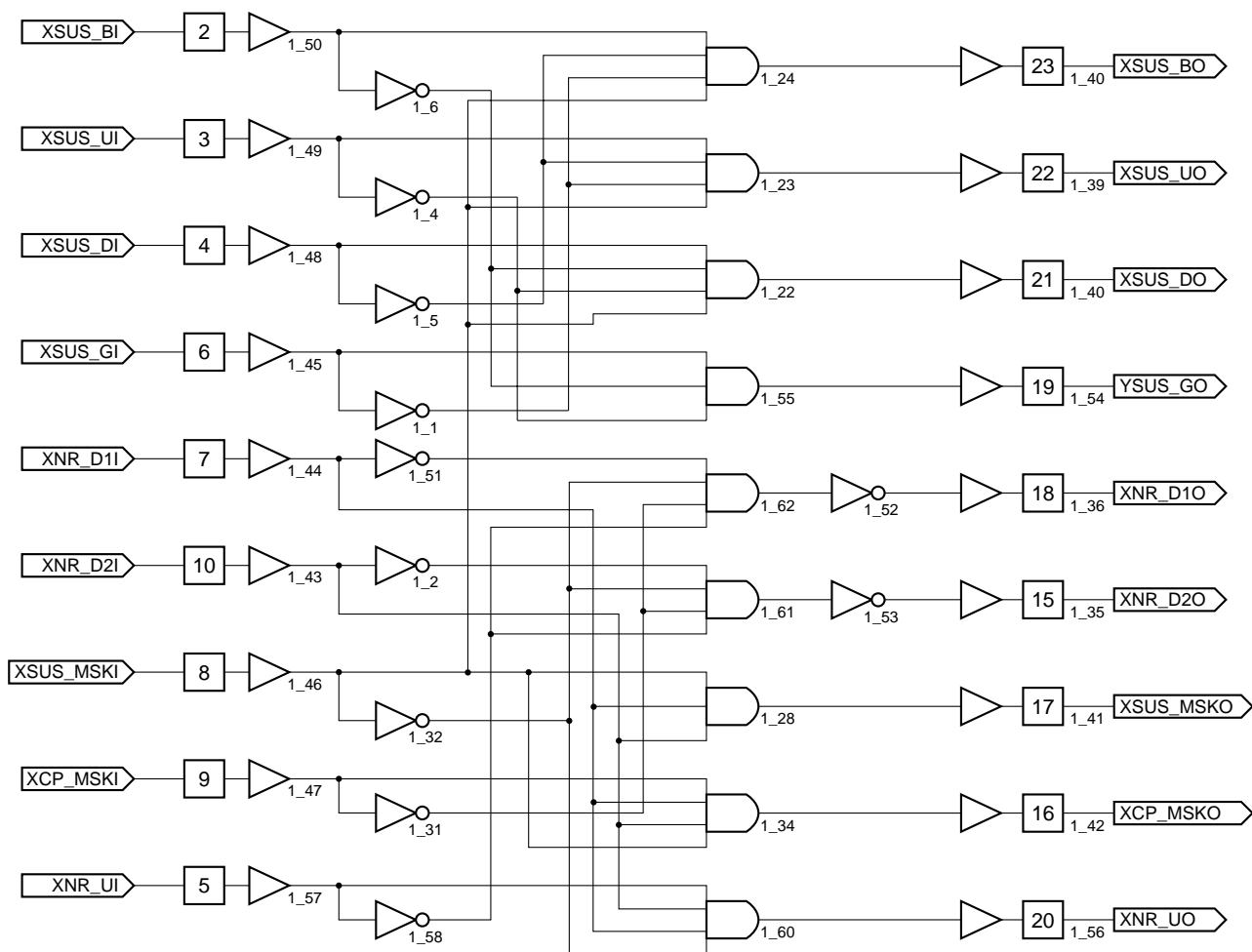
PE1012A (X DRIVEASSY : IC3003)

Drive Protect PLD

Pin Assignment (Top View)



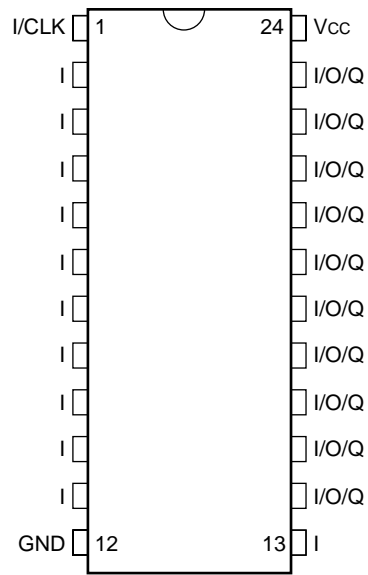
Block Diagram



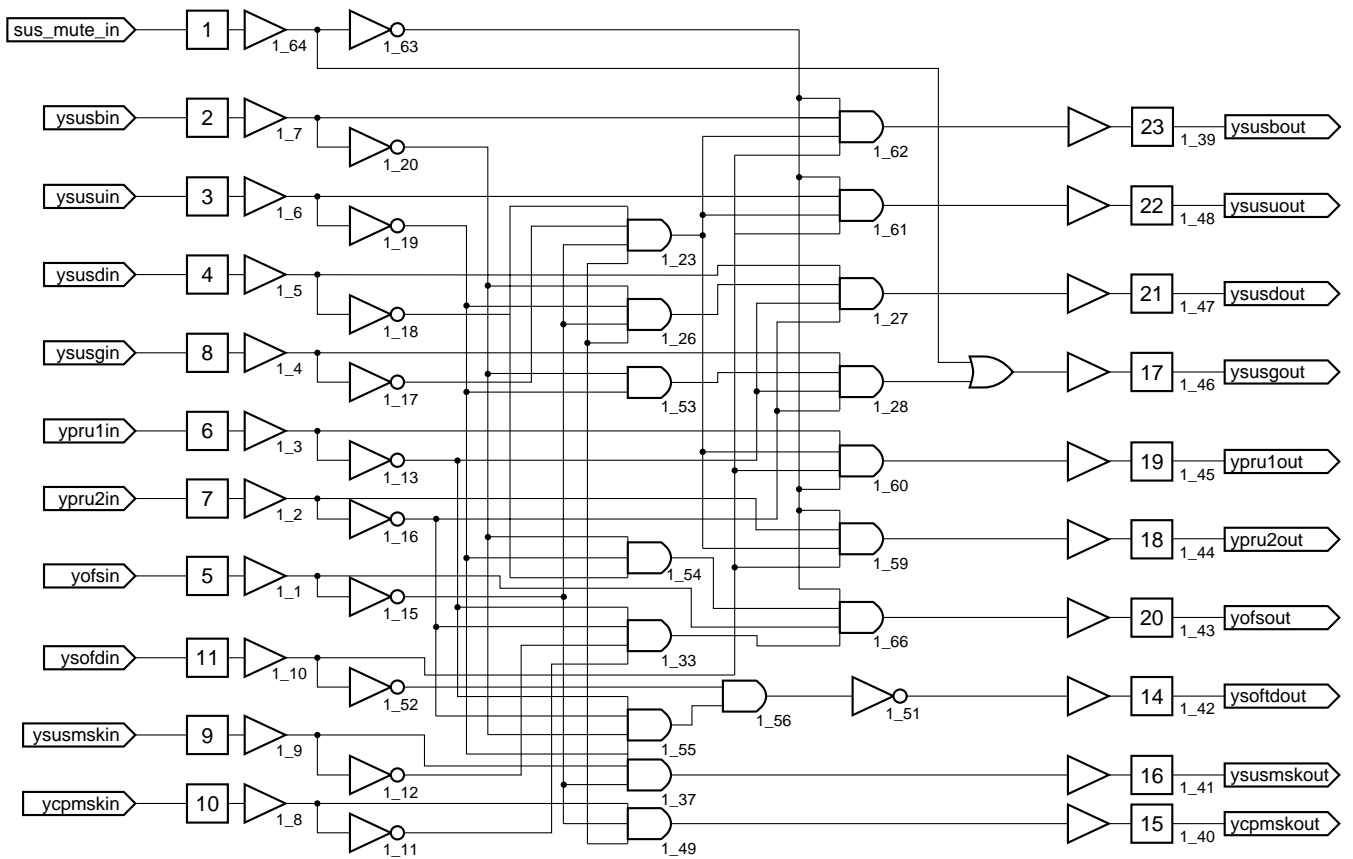
PE1013B (Y DRIVEASSY : IC2006)

Drive Protect PLD

● Pin Assignment (Top View)



● Block Diagram



M30624FGAFP (DIGITAL VIDEO ASSY : IC1207)

Module Microcomputer

● Pin Function (1/2)

No.	Pin Name	Function
1	TXD	Serial 3 line data output for communication with a panel microcomputer
2	CLK	Serial 3 line clock for communication with a panel microcomputer
3	NC	NC terminal
4	NC	NC terminal
5	NC	NC terminal
6	NC	NC terminal
7	NC	NC terminal
8	BYTE	The external data bus width reshuffling input (I am unused and connect GND)
9	CNVSS	A power supply for program note (a note, 5V, usually, pull-down)
10	XCIN	NC terminal
11	XCOUT	NC terminal
12	RESET	A reset input terminal
13	XOUT	Clock output terminal
14	VSS	GND
15	XIN	Clock input terminal
16	VCC	5V standby power
17	NMI	Because a NMI interruption terminal is unused, It handle pull up.
18	REM	The SR signal input
19	REQ_PU	A communication demand from a panel microcomputer (the pulse meter acquisition)
20	/SW_TRG	Main switch OFF / ON search
21	NC	NC terminal
22	NC	NC terminal
23	NC	NC terminal
24	AC_OFF	AC power OFF search and power supply ASSY differentiation.
25	PD_TRIGGER	Power down search
26	NC	NC terminal
27	NC	NC terminal
28	NC	NC terminal
29	SCL	EEPROM, IIC communication with power supply ASSY
30	SDA	EEPROM, IIC communication with power supply ASSY
31	TXD1	Communication with the outside (a program note)
32	RXD1	Communication with the outside (a program note)
33	CLK1	Communication with the outside (a program note)
34	BUSY1	Communication with the outside (a program note)
35	TXD0	Communication with outside ASSY (microcomputers main in RGB ASSY, etc)
36	RXD0	Communication with outside ASSY (microcomputers main in RGB ASSY, etc)
37	NC	NC terminal
38	REQ_MD/A_MUTE	232C communication demand (a request to a main microcomputer) / audio system mute
39	NC	NC terminal
40	NC	NC terminal
41	EPM	The EPM input for program note (L fixation)
42	NC	NC terminal
43	PU_CE	Enables/ for panel microcomputer
44	NC	NC terminal
45	MOD_SW/A_NG	The model of machines distinction input / audio system NG input
46	CE	The CE input for program note (H fixation)
47	DITHER/SW_STC	Power supply search of a dither setting / media receiver for module
48	NC	NC terminal
49	/SW_STP	Power supply search of a panel
50	NC	NC terminal

● Pin Function (2/2)

No.	Pin Name	Function
51	NC	NC terminal
52	RELAY	The output for power supply ON / OFF change
53	POWER/MSTATE	Input / SI861 master information for power supply ON / OFF change
54	NC	NC terminal
55	WE_PN	Buffer state control for panel microcomputer note
56	MD0	The panel microcomputer mode of operation change output
57	MD2	The panel microcomputer mode of operation change output
58	FWE	The panel microcomputer program note control signal output
59	RST_PU	The panel microcomputer reset output
60	PN_MUTE	The panel mute input
61	NC	NC terminal
62	VCC	5V standby power
63	NC	NC terminal
64	VSS	GND
65	NC	NC terminal
66	NC	NC terminal
67	/A_SCL	IIC clock for audio system
68	/A_SDA	IIC data for audio system
69	APD_MUTE	A mute signal of address series
70	ADR_K_PD	The address oscillatory system PD input
71	ADR_PD	The address series PD input
72	DCC_PD	The power supply system PD input
73	NC	NC terminal
74	NC	NC terminal
75	RST2	Panel microcomputer reset search
76	NC	NC terminal
77	/DDC_SCL	IIC communication with a media receiver
78	/DDC_SDA	IIC communication with a media receiver
79	NC	NC terminal
80	NC	NC terminal
81	DEW_DET	The dew condensation sensor input
82	NC	NC terminal
83	NC	NC terminal
84	NC	NC terminal
85	NC	NC terminal
86	LED_G	Green LED lighting (LED on interface ASSY in a panel module)
87	LED_R	Red LED lighting (LED on interface ASSY in a panel module)
88	NC	NC terminal
89	BUSY	Communication permission / inhibiting signal from a panel microcomputer
90	NC	NC terminal
91	NC	NC terminal
92	/F_KEY1	The front KEY input
93	MAX_PLS2/F_KEY2	The terminal / front KEY input for brightness setting mode of operation change
94	TEMP1	The A/D input for temperature sensor
95	MAX_PLS? /CCKM	Terminal / connection search for brightness setting mode of operation change
96	AVSS	GND for AD conversion
97	PM_ST	The A/D input for model of machines distinction
98	VREF	Reference voltage for AD conversion
99	AVCC	5V standby power for AD conversion
100	RXD	Serial 3 line data entry for communication with a panel microcomputer

PD6358A (DIGITAL VIDEO ASSY : IC1301, IC1401)

Picture Improved IC

● Pin Function (1/7)

No.	Pin Name	Function
1	VSS	GND
2	TESTO6	Test output terminal (unused)
3	OSDCLK	The CLK input for OSD
4	TTST	Test input terminal (unused)
5	VDDI	2.5V power supply
6	OVDDE-01	3.3V power supply
7	AGO0	Address data output (G signal)
8	VDDI	2.5V power supply
9	AGO2	Address data output (G signal)
10	AGO3	Address data output (G signal)
11	AGO4	Address data output (G signal)
12	VDDI	2.5V power supply
13	ARO6	Address data output (R signal)
14	AGO7	Address data output (G signal)
15	VDDI	2.5V power supply
16	ARO9	Address data output (R signal)
17	ABO9	Address data output (B signal)
18	VDDI	2.5V power supply
19	ADRCLKO2	The address CLK output (for panel upper part)
20	ARO12	Address data output (R signal)
21	ARO13	Address data output (R signal)
22	AGO14	Address data output (G signal)
23	AGO15	Address data output (G signal)
24	ARO16	Address data output (R signal)
25	ARO17	Address data output (R signal)
26	VSS	GND
27	ABO17	Address data output (B signal)
28	AGO17	Address data output (G signal)
29	AGO18	Address data output (G signal)
30	ABO19	Address data output (B signal)
31	UDAT15	Microcomputer data bus
32	UDAT12	Microcomputer data bus
33	UDAT9	Microcomputer data bus
34	UDAT5	Microcomputer data bus
35	OVDDE-06	3.3V power supply
36	APLP	APL value output trigger signal
37	OVDDE-08	3.3V power supply
38	CS5BI	The chip select input
39	CS4BI	The chip select input
40	UADRI13	Microcomputer address bus
41	UADRI9	Microcomputer address bus
42	UADRI6	Microcomputer address bus
43	UADRI2	Microcomputer address bus
44	UADRI1	Microcomputer address bus
45	TESTI2	Test input terminal (unused)
46	BIT0	The subfield No output (the 0 bit)
47	OVDDE-11	3.3V power supply
48	TESTO4	Test output terminal (unused)
49	ARO39	Address data output (G signal)
50	AGO38	Address data output (G signal)

● Pin Function (2/7)

No.	Pin Name	Function
51	VSS	GND
52	ABO37	Address data output (B signal)
53	ABO36	Address data output (B signal)
54	ARO36	Address data output (R signal)
55	ABO34	Address data output (B signal)
56	ADRCLK04	The address CLK output (for panel bottom part)
57	AGO33	Address data output (G signal)
58	AGO32	Address data output (G signal)
59	AGO31	Address data output (G signal)
60	AGO30	Address data output (G signal)
61	AGO29	Address data output (G signal)
62	VDDI	2.5V power supply
63	ABO27	Address data output (B signal)
64	AGO26	Address data output (G signal)
65	VDDI	2.5V power supply
66	AGO24	Address data output (G signal)
67	VDDI	2.5V power supply
68	ABO22	Address data output (B signal)
69	VDDI	2.5V power supply
70	ARO21	Address data output (R signal)
71	ARO20	Address data output (R signal)
72	VDDI	2.5V power supply
73	OVDDE-14	3.3V power supply
74	TDI	The JTAG input
75	RBI9	The R picture B aspect signal input (the ninth bit)
76	VSS	GND
77	RBI8	The R picture B aspect signal input (the eighth bit)
78	RBI6	The R picture B aspect signal input (the sixth bit)
79	RBI4	The R picture B aspect signal input (the fourth bit)
80	OVSS-09	GND
81	RSTB	Reset input
82	GBI8	The G picture B aspect signal input (the eighth bit)
83	OVDDE-18	3.3V power supply
84	GBI5	The G picture B aspect signal input (the fifth bit)
85	GBI2	The G picture B aspect signal input (the second bit)
86	DEI	DE signal input
87	BBI6	The B picture B aspect signal input (the sixth bit)
88	BBI3	The B picture B aspect signal input (the third bit)
89	VDI	VD signal input
90	HDI	HD signal input
91	RAI6	The R picture A aspect signal input (the sixth bit)
92	RAI2	The R picture A aspect signal input (the second bit)
93	TESTI0	Test input terminal (unused)
94	OVSS-11	GND
95	GAI7	The G picture A aspect signal input (the seventh bit)
96	GAI3	The G picture A aspect signal input (the third bit)
97	GAI0	The G picture A aspect signal input (the 0 bit)
98	BAI6	The B picture A aspect signal input (the sixth bit)
99	BAI3	The B picture A aspect signal input (the third bit)
100	BAI0	The B picture A aspect signal input (the 0 bit)

● Pin Function (3/7)

No.	Pin Name	Function
101	TESTO7	Test output terminal (unused)
102	TESTO5	Test output terminal (unused)
103	OSDH	OSDH input
104	BLK	OSDBLK input
105	OSDB	OSDB signal input
106	NC	NC terminal
107	ARO1	Address data output (R signal)
108	ARO2	Address data output (R signal)
109	ARO3	Address data output (R signal)
110	ARO4	Address data output (R signal)
111	ARO5	Address data output (R signal)
112	ABO5	Address data output (B signal)
113	ARO7	Address data output (R signal)
114	ARO8	Address data output (R signal)
115	ABO8	Address data output (B signal)
116	AGO9	Address data output (G signal)
117	AGO10	Address data output (G signal)
118	ADRCLKO1	Address CLK output (for panel upper part)
119	ABO11	Address data output (B signal)
120	ABO12	Address data output (B signal)
121	ARO14	Address data output (R signal)
122	ARO15	Address data output (R signal)
123	ABO15	Address data output (B signal)
124	ABO16	Address data output (B signal)
125	AGO16	Address data output (G signal)
126	ARO18	Address data output (R signal)
127	AGO19	Address data output (G signal)
128	OVDDE-05	3.3V power supply
129	UDAT13	Microcomputer data bus
130	UDAT10	Microcomputer data bus
131	UDAT6	Microcomputer data bus
132	UDAT3	Microcomputer data bus
133	UDAT0	Microcomputer data bus
134	OVDDE-07	3.3V power supply
135	LR	The panel LR select input
136	RDBI	Microcomputer read control terminal
137	CLKSEL	CLK select input
138	UADRI10	Microcomputer address bus
139	UADRI7	Microcomputer address bus
140	UADRI3	Microcomputer address bus
141	CYCLEB	Address data output control signal
142	BIT2	Subfield No. output (the second bit)
143	SFSTB	Address data output control signal
144	OVSS-05	GND
145	TESTO2	Test output terminal (unused)
146	ABO38	Address data output (B signal)
147	ARO38	Address data output (R signal)
148	ARO37	Address data output (R signal)
149	AGO36	Address data output (G signal)
150	ARO35	Address data output (R signal)

● Pin Function (4/7)

No.	Pin Name	Function
151	ADRCCLKO3	The address CLK output (for panel bottom part)
152	ABO33	Address data output (B signal)
153	ABO32	Address data output (B signal)
154	VDDI	2.5V power supply
155	ABO30	Address data output (B signal)
156	VDDI	2.5V power supply
157	ABO28	Address data output (B signal)
158	ARO28	Address data output (R signal)
159	ABO26	Address data output (B signal)
160	ABO25	Address data output (B signal)
161	ABO24	Address data output (B signal)
162	ARO24	Address data output (R signal)
163	ARO23	Address data output (R signal)
164	ARO22	Address data output (R signal)
165	AGO21	Address data output (G signal)
166	AGO20	Address data output (G signal)
167	TDO	JTAG signal
168	TMS	JTAG signal
169	RBI7	The R picture B aspect signal input (the seventh bit)
170	TCK	JTAG signal
171	RBI5	The R picture B aspect signal input (the fifth bit)
172	RBI3	The R picture B aspect signal input (the third bit)
173	RBI1	The R picture B aspect signal input (the first bit)
174	OVDDE-16	3.3V power supply
175	GBI7	The G picture B aspect signal input (the seventh bit)
176	OVSS-10	GND
177	GBI4	The G picture B aspect signal input (the fourth bit)
178	GBI1	The G picture B aspect signal input (the first bit)
179	BBI9	The B picture B aspect signal input (the ninth bit)
180	BBI5	The B picture B aspect signal input (the fifth bit)
181	BBI2	The B picture B aspect signal input (the second bit)
182	RAI9	The R picture A aspect signal input (the ninth bit)
183	CLK3	CLK input terminal (unused)
184	RAI5	The R picture A aspect signal input (the fifth bit)
185	RAI1	The R picture A aspect signal input (the first bit)
186	TESTI1	Test input terminal (unused)
187	GAI9	The G picture A aspect signal input (the ninth bit)
188	GAI6	The G picture A aspect signal input (the sixth bit)
189	GAI2	The G picture A aspect signal input (the second bit)
190	BAI9	The B picture A aspect signal input (the ninth bit)
191	BAI5	The B picture A aspect signal input (the fifth bit)
192	BAI2	The B picture A aspect signal input (the second bit)
193	BAI1	The B picture A aspect signal input (the first bit)
194	OVSS-01	GND
195	OVSS-02	GND
196	OSDG	OSDG signal input
197	ARO0	Address data output (R signal)
198	ABO0	Address data output (B signal)
199	ABO1	Address data output (B signal)
200	ABO2	Address data output (B signal)

● Pin Function (5/7)

No.	Pin Name	Function
201	ABO3	Address data output (B signal)
202	ABO4	Address data output (B signal)
203	OVDDE-02	3.3V power supply
204	ABO6	Address data output (B signal)
205	ABO7	Address data output (B signal)
206	VDDI	2.5V power supply
207	OVDDE-03	3.3V power supply
208	ARO10	Address data output (R signal)
209	ABO10	Address data output (B signal)
210	AGO11	Address data output (G signal)
211	AGO12	Address data output (G signal)
212	ABO13	Address data output (B signal)
213	ABO14	Address data output (B signal)
214	OVDDE-04	3.3V power supply
215	OVSS-03	GND
216	ARO19	Address data output (R signal)
217	TESTO1	Test output terminal (unused)
218	UDAT14	Microcomputer data bus
219	UDAT11	Microcomputer data bus
220	UDAT7	Microcomputer data bus
221	UDAT4	Microcomputer data bus
222	UDAT1	Microcomputer data bus
223	VDRD	V signal output
224	HWRBI	Microcomputer wright control terminal
225	UADRI14	Microcomputer address bus
226	OVDDE-09	3.3V power supply
227	UADRI11	Microcomputer address bus
228	UADRI8	Microcomputer address bus
229	UADRI4	Microcomputer address bus
230	BIT3	Subfield No. output (the third bit)
231	BIT1	Subfield No. output (the first bit)
232	OVDDE-10	3.3V power supply
233	TESTO3	Test output terminal (unused)
234	ABO39	Address data output (B signal)
235	AGO37	Address data output (G signal)
236	OVSS-06	GND
237	AGO35	Address data output (G signal)
238	ADRCLKO5	Address CLK output (for panel bottom part)
239	ARO34	Address data output (R signal)
240	ARO33	Address data output (R signal)
241	ABO31	Address data output (B signal)
242	ARO31	Address data output (R signal)
243	ABO29	Address data output (B signal)
244	ARO29	Address data output (R signal)
245	OVDDE-12	3.3V power supply
246	ARO27	Address data output (R signal)
247	ARO26	Address data output (R signal)
248	ARO25	Address data output (R signal)
249	OVDDE-13	3.3V power supply
250	AGO23	Address data output (G signal)

● Pin Function (6/7)

No.	Pin Name	Function
251	AGO22	Address data output (G signal)
252	VDDI	2.5V power supply
253	ABO20	Address data output (B signal)
254	OVSS-07	GND
255	OVDDE-15	3.3V power supply
256	OVSS-08	GND
257	RBI2	The R picture B aspect signal input (the second bit)
258	TRST	JTAG signal
259	GBI9	The G picture B aspect signal input (the ninth bit)
260	GBI6	The G picture B aspect signal input (the sixth bit)
261	OVDDE-17	3.3V power supply
262	GBI3	The G picture B aspect signal input (the third bit)
263	GBI0	The G picture B aspect signal input (the 0 bit)
264	BBI8	The B picture B aspect signal input (the eighth bit)
265	BBI4	The B picture B aspect signal input (the fourth bit)
266	BBI1	The B picture B aspect signal input (the first bit)
267	RAI8	The R picture A aspect signal input (the eighth bit)
268	OVDDE-19	3.3V power supply
269	RAI4	The R picture A aspect signal input (the fourth bit)
270	RAI0	The R picture A aspect signal input (the 0 bit)
271	FREERUN	The freerun control input
272	GAI8	The G picture A aspect signal input (the eighth bit)
273	GAI5	The G picture A aspect signal input (the fifth bit)
274	GAI1	The G picture A aspect signal input (the first bit)
275	BAI8	The B picture A aspect signal input (the eighth bit)
276	BAI4	The B picture A aspect signal input (the fourth bit)
277	VDDE	3.3V power supply
278	OSDV	OSDV input
279	VSS	GND
280	OSDR	OSDR signal input
281	VDDE	3.3V power supply
282	AGO1	Address data output (G signal)
283	VSS	GND
284	VDDI	2.5V power supply
285	VDDI	2.5V power supply
286	AGO5	Address data output (G signal)
287	AGO6	Address data output (G signal)
288	VDDI	2.5V power supply
289	AGO8	Address data output (G signal)
290	VSS	GND
291	ADRCLKO0	The address CLK output (for panel upper part)
292	VDDE	3.3V power supply
293	ARO11	Address data output (R signal)
294	VSS	GND
295	AGO13	Address data output (G signal)
296	VDDE	3.3V power supply
297	ABO18	Address data output (B signal)
298	VSS	GND
299	TESTO0	Test output terminal (unused)
300	VDDI	2.5V power supply

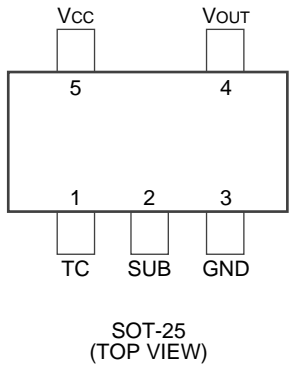
● Pin Function (7/7)

No.	Pin Name	Function
301	UDAT8	Microcomputer data bus
302	VSS	GND
303	UDAT2	Microcomputer data bus
304	VDDI	2.5V power supply
305	OVSS-04	GND
306	UADRI15	Microcomputer address bus
307	VDDI	2.5V power supply
308	UADRI12	Microcomputer address bus
309	VSS	GND
310	UADRI5	Microcomputer address bus
311	VDDI	2.5V power supply
312	NC	NC terminal
313	VSS	GND
314	AGO39	Address data output (G signal)
315	VDDE	3.3V power supply
316	ABO35	Address data output (B signal)
317	VSS	GND
318	AGO34	Address data output (G signal)
319	VDDE	3.3V power supply
320	ARO32	Address data output (R signal)
321	VSS	GND
322	ARO30	Address data output (R signal)
323	VDDI	2.5V power supply
324	AGO28	Address data output (G signal)
325	AGO27	Address data output (G signal)
326	NC	NC terminal
327	AGO25	Address data output (G signal)
328	VSS	GND
329	ABO23	Address data output (B signal)
330	VDDE	3.3V power supply
331	ABO21	Address data output (B signal)
332	VSS	GND
333	VPD	GND
334	VDDE	3.3V power supply
335	RBI0	The R picture B aspect signal input (the 0 bit)
336	VSS	GND
337	ACLK	CLK input (25MHz)
338	VDDI	2.5V power supply
339	CLK4	CLK input (50MHz)
340	VSS	GND
341	BBI7	The B picture B aspect signal input (the seventh bit)
342	VDDI	2.5V power supply
343	BBI0	The B picture B aspect signal input (the 0 bit)
344	RAI7	The R picture A aspect signal input (the seventh bit)
345	VDDI	2.5V power supply
346	RAI3	The R picture A aspect signal input (the third bit)
347	VSS	GND
348	CLK2	The image system CLK input
349	VDDI	2.5V power supply
350	GAI4	The G picture A aspect signal input (the fourth bit)
351	VSS	GND
352	BAI7	The B picture A aspect signal input (the seventh bit)

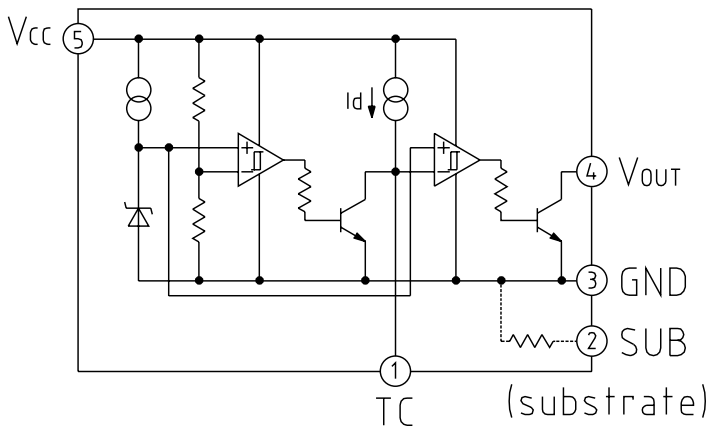
■ PST9246N (DIGITAL VIDEO ASSY: IC1208)

Drive Protect PLD

● Pin Assignment (Top View)



● Block Diagram



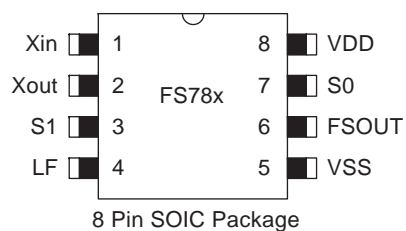
● Pin Function

Pin No.	Pin name	Functions
1	TC	TPLH control pin
2	SUB	Substate pin
3	GND	GND pin
4	Vout	Reset signal output pin
5	Vcc	Vcc pin / voltage detect pin

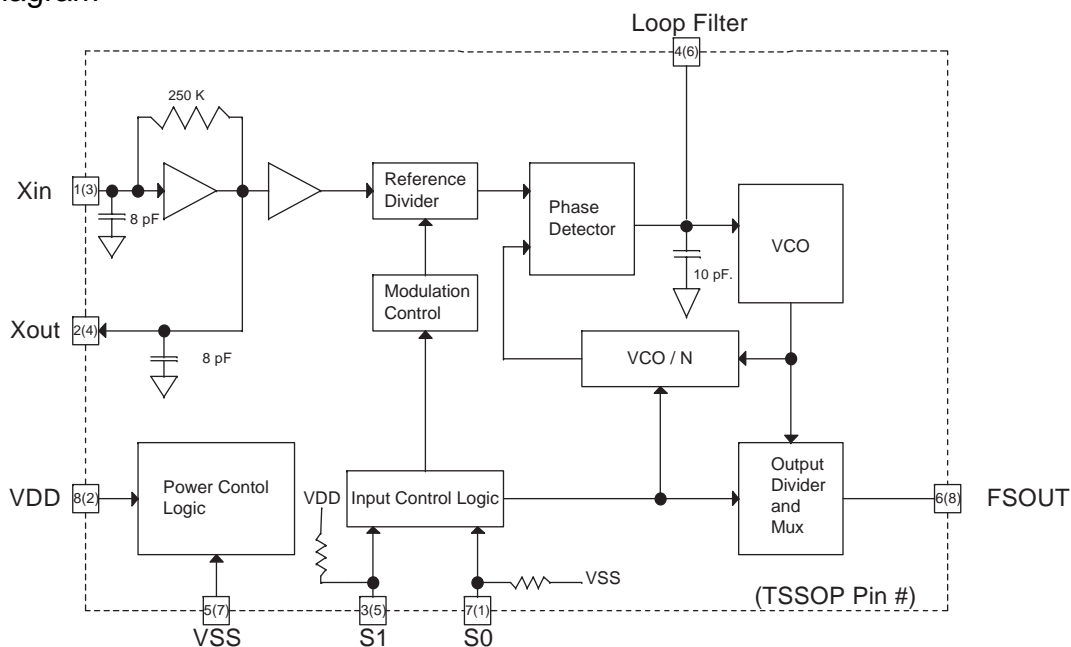
FS781BZB (DIGITAL VIDEO ASSY: IC1802)

Low EMI Clock IC

Pin Assignment (Top View)



Block Diagram

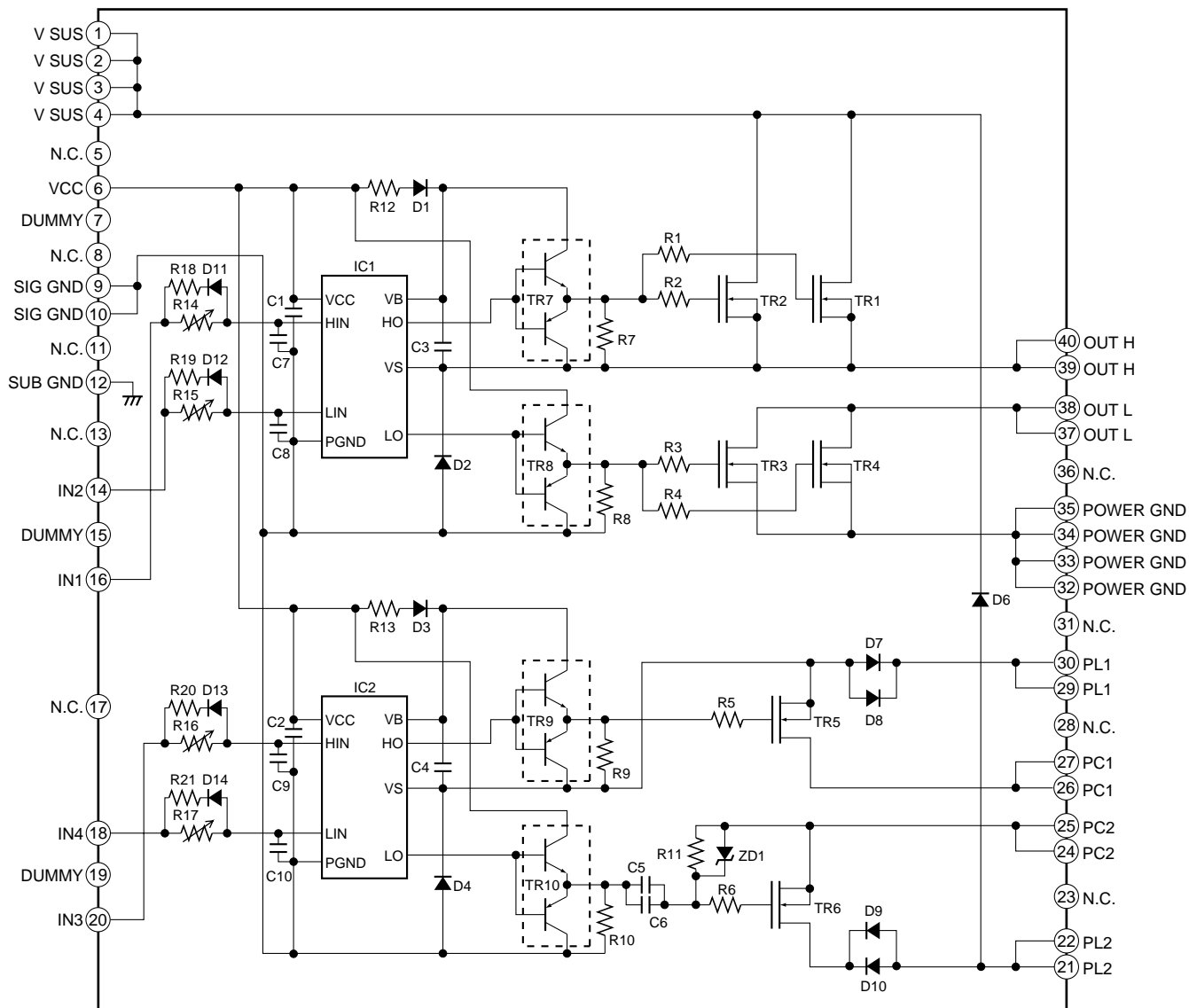


Pin Function

No.	Pin Name	I/O	Type	Function
1/2	Xin/Xout	I/O	Analog	Pins form an on-chip reference oscillator when connected to terminals of an external parallel resonant crystal. Xin may be connected to TTL/CMOS external clock source. If Xin connected to external clock other than crystal, leave Xout (pin2) unconnected.
7/3	S0/S1	I	CMOS/TTL	Digital control inputs to select input frequency range and output frequency scaling. Refer to Tables 7 and 8 for selection. S0 has internal pulldown. S1 has internal pullup.
4	LF	I	Analog	Loop Filter. Single ended tri-state output of the phase detector. A two-pole passive loop filter is connected to Loop Filter (LF).
6	FSOUT	O	CMOS/TTL	Modulated Clock Frequency Output. The center frequency is the same as the input reference frequency for FS781. Input frequency is multiplied by 2X and 4X for FS782 and FS784 respectively.
8	VDD	P	Power	Positive Power Supply
5	VSS	P	Power	Power Supply Ground

■ STK795-470 (X DRIVE ASSY : IC3200, IC3201, Y DRIVE ASSY : IC2206, IC2214) PDP Pulse Module IC

● Block Diagram



8. PANEL FACILITIES

Plasma Display

